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Naval Appropriation Bill, 1922

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HEARING

BEFORE THE

COMMITTEE ON NAVAL AFFAIRS
UNITED STATES SENATE

SIXTY-SIXTH CONGRESS

THIRD SESSION

ON

H. R. 15975

A BILL MAKING APPROPRIATIONS FOR THE NAVAL SERVICE FOR THE FISCAL YEAR ENDING JUNE 30, 1922, AND FOR OTHER PURPOSES

Printed for the use of the Committee on Naval Affairs

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NAVAL APPROPRIATION BILL, 1922.

FRIDAY, FEBRUARY 18, 1921.

UNITED STATES SENATE,
SUBCOMMITTEE OF COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met pursuant to call at 10.30 o'clock a. m., in committee room, Capitol, Senator Miles Poindexter, presiding.

Present: Senators Poindexter (acting chairman), Hale, Ball, Keyes, Swanson, Phelan, and Gerry.

The CHAIRMAN. The committee will be in order. The subcommittee will take up the naval bill, and the first proceeding will be to have any suggestions there are from the department. If there is anyone here representing the department that desires to make suggestions or to be heard in regard to any proposed changes or additions to the bill as it passed the House we would like to have their evidence and any information they have to give us. We will take the bill up from the beginning, and have the hearings, and afterwards we will then hold executive sessions and take action on it.

Admiral Coontz, if you will bring up these matters and direct the hearing on the part of the department, we will be obliged to you.

STATEMENT OF ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS.

Admiral COONTZ. I think I ought to call the attention of the committee to one thing before we start, Senator.

The CHAIRMAN. Just one moment. Senator Swanson suggests that it might be desirable on the part of the heads of the bureaus of the Navy to come here in sequence, and not to require them all to be present here at one time.

Admiral COONTZ. Yes, sir. The early part of the bill involves only the Supply Department and the Chief of the Bureau of Navigation. After that, I believe, next comes Ordnance, Construction and Repair, Engineering, Public Works, and Marine Corps. I do not believe you will get beyond the Navigation Bureau this morning and "Pay, miscellaneous."

The CHAIRMAN. With the exception of those representing the Bureau of Navigation and Supplies and Accounts, the others will be excused, if they desire, until this afternoon.

Admiral COONTZ. I was going, first, gentlemen, to call your attention to the fact that the House bill is apparently framed upon a naval authorization of 100,000 men, that all the appropriations are made with that in view, and that should be considered as we go along.

The only other statement I have to make would be that last year's appropriation bill as finally passed was for $435,000,000. Since then a deficiency of $61,000,000 has been added to that for this year, making $496,000,000. Of that a part was for the increase in the pay of officers and men, for which the law was passed but no appropriation was made. The appropriation bill as passed in this bill amounts to $395,000,000. Therefore there has been an even reduction of $100,000,000 over last year's bill.

Last year's bill was based on the agreement that we would carry on a Navy of an average strength of 120,000 men, which we have done.

Senator SWANSON. Have you ever prepared an estimate both of men and ships that you would like to have in the fleet; that is, with the names of the ships and the complements of the men of each one?

Admiral COONTZ. Yes, sir. The way we feel, Senator, is that to properly carry out the Navy for this coming year we want 120,000 men. If we were absolutely forced down to the lowest limit and had to put out a large number, we would come to 110,000 men.

Senator SWANSON. What I mean is instead of round numbers, I have always insisted the number should be specific, and that we require the submission of the ships that are wanted to have in full commission with the complements of men, not in round numbers, but the actual number required. Then we get an idea as to what we are doing.

Admiral COONTZ. Yes, sir.

Senator SWANSON. But instead of to take 110,000 or 120,000 men, and then fit them to the ships, the better way is take the ships that you think ought to constitute your active Navy, and then furnish the men required to equip them in good shape. That is the policy I have always thought was wise.

Admiral COONTZ. Yes, sir. We furnished the House Naval Committee with the ships that we thought should be kept in commission, and we showed that we could man those for the coming year with 120,000 men.

Senator SWANSON. How many did you put in reserve? Have you prepared the list?

The CHAIRMAN. Is that the Naval Committee or the Appropriations Committee?

Admiral COONTZ. The Appropriations Committee.

Senator SWANSON. Will you file that in the record here?

Admiral COONTZ. Yes, sir. I have prepared three tables here.

Senator SWANSON. I would like to have that.

(The documents referred to are as follows:)

TABLE A.—*Detail list of operating forces on basis of 120,000 men in Navy, with 80,000 available for seagoing vessels.*

VESSELS IN FULL COMMISSION.

No.		Original complement.	Present complement.
1	Battleships, first line (15):		
	Arizona	1,006	1,292
	Arkansas	930	1,354
	California	1,340	1,340
	Delaware	999	1,263
	Idaho	1,327	1,410
	Mississippi	1,055	1,410
	New Mexico	1,022	1,393
	New York	962	1,345
	Nevada	969	1,208
	North Dakota	847	1,217
	Oklahoma	969	1,208
	Pennsylvania	951	1,298
	Tennessee	1,345	1,352
	Texas	962	1,345
	Wyoming	910	1,354
	Total	15,594	19,789
2	Battleships, first line (2) (reduced complements for flagship duty other than with battleship force):		
	Florida	845	900
	Utah	845	900
	Total	1,690	1,800
3	Cruisers (miscellaneous) (8):		
	Birmingham	354	359
	Charleston	653	392
	Chester	354	358
	Columbia	436	437
	Frederick	777	585
	Rochester	502	542
	St. Louis	653	392
	Salem	354	357
	Total	4,083	3,422
4	Destroyers, first line (122):		
	Average complement of each	114	114
	Total	13,908	13,908
5	Submarines (87):		
	8 H's, 8 K's, 4 L's, 16 O's, 27 R's, 21 S's, 3 T's (complements from 23 to 41 depending on type)	18–41	23–41
	Total	2,462	2,562
6	Destroyer tenders (7):		
	Black Hawk	353	431
	Bridgeport	766	767
	Buffalo	185	411
	Dixie	290	614
	Melville	268	391
	Panther	128	235
	Prairie	268	449
	Total	2,258	3,298
7	Submarine tenders (5):		
	Beaver	249	274
	Bushnell	156	201
	Camden	395	364
	Rambow	217	298
	Savannah	376	337
	Total	1,393	1,414
8	Shore-based submarine tenders (5):		
	Fulton (New London)	199	544
	Eagle 17 (Hampton Roads)	313	323
	Eagle 31 (Coco Solo)	357	410
	Alert (San Pedro)	385	452
	Chicago (Pearl Harbor)	377	452
	Total	1,631	2,181
9	Repair ships (2):		
	Prometheus	159	48
	Vestal	159	488
	Total	318	977
10	Hospital ships (2):		
	Relief	360	360
	Mercy	317	270
	Total	677	570
11	Storeships (6):		
	Bridge	150	212
	Celtic	160	157
	Culgoa	156	165
	Glacier	135	141
	Pompey	106	74
	Rappahannock	149	285
	Total	856	1,034
12	Auxiliaries (target repair) (2):		
	Lebanon	56	112
	Nanshaw	45	70
	Total	101	182
13	Auxiliary (radio repair) (1):		
	Saturn	66	120
14	Aircraft tenders (2):		
	Aroostook	251	317
	Shawmut	251	369
	Total	502	686
15	Aircraft carrier (1):		
	Langley (not yet commissioned).		
16	Minelayers (2):		
	Baltimore	282	322
	San Francisco	286	376
	Total	568	698
17	Minesweepers and fleet tugs (35):		
	8 fleet tugs, 27 to 56 men, depending on type	328	360
	15 minesweepers for train service, 54 men each	1,005	810
	12 minesweepers for mine force, 54 men each	804	648
	Total	2,137	1,818
18	Colliers (9):		
	Ajax	96	96
	Caesar	79	80
	Jason	128	110

TABLE A.—*Detail list of operating forces on basis of 120,000 men in Navy, with 80,000 available for seagoing vessels*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.		Original complement.	Present complement.
18	Colliers (9)—Continued.		
	Mars	119	103
	Nereus	135	110
	Neptune	148	110
	Orion	139	110
	Proteus	135	180
	Vulcan	119	101
	Total	1,089	1,000
19	Oilers (11):		
	Alameda	75	75
	Arethusa	78	79
	Brazos	88	141
	Cuyama	101	141
	Kanawha	139	141
	Neches	138	145
	Patoka	75	75
	Pecos	141	141
	Ramapo	75	75
	Sapelo	75	78
	Trinity	75	75
	Total	1,060	1,166
20	Transports and cargo ships (6):		
	Beaufort	81	75
	Hancock	215	289
	Henderson	201	403
	Houston	134	134
	Kittery	77	97
	Newport News	75	120
	Total	786	1,118
21	Ammunition ships (2):		
	Nitro	219	219
	Pyro	219	219
	Total	438	438
22	Fleet aviation detachment: Consists of men of aviation ratings and training specially assigned in connection with aviation activities in the fleet. Does not include the operating complements of aircraft tenders.	1,180	1,180
23	Flag complement: Comprises men specially assigned to staff duty on flagships, signalmen, yeomen, bandsmen, mess attendants, etc	(1)	1,111
24	Patrol craft (19):		
	Albany	297	297
24	Patrol craft (19)—Contd.		
	Asheville	148	148
	Cleveland	279	289
	Denver	279	292
	Des Moines	279	289
	Dolphin	128	153
	El Cano	97	94
	Helena	177	162
	Monocacy	46	46
	New Orleans	297	297
	Niagara	195	136
	Palos	46	46
	Pampanga	30	30
	Quiros	54	55
	Sacramento	151	152
	Tacoma	279	289
	Tulsa	148	148
	Villalobos	54	55
	Wilmington	177	162
	Total	3,161	2,992
—"	Auxiliaries (surveyships) (2):		
	Hannibal	143	146
	Paducah	231	223
	Total	374	369
26	Fish Commissionships (2):		
	Albatross	71	81
	Fish Hawk	44	44
	Total	115	125
27	Special duty craft (by stations) (13):		
	Washington (3)—		
	Aramis (Sylph)	33	47
	Mayflower	168	172
	Nokomis	57	57
	Guantanamo (2)—		
	Montcalm	39	39
	Oceola	26	27
	Santo Domingo (2)—		
	Despatch	39	47
	Potomac	36	51
	Virgin Islands (2)—		
	Tadousac	39	47
	Vixen	100	120
	Constantinople (1)—		
	Scorpion	80	84
	Guam (2)—		
	Gulfport	68	76
	Napa	39	39
	Samoa (1):		
	Conestoga	27	43
	Total	751	821

[1] Variable.

TABLE A.—*Detail list of operating forces on basis of 120,000 men in Navy, with 80,000 available for seagoing vessels*—Continued.

VESSELS IN RESERVE OR REDUCED COMMISSION.

No.		Original complement.	Present complement.
28	Experimental ship (1): Ohio	706	600
29	Battleships, second line (6):		
	Connecticut	853	600
	Kansas	853	600
	Michigan	715	600
	Minnesota	853	600
	New Hampshire	853	600
	South Carolina	704	600
	Total	4,831	3,600
30	Submarines (22):		
	13 in reserve, comprising 3 D's, 2 E's, 7 L's, 1 M..	282	39
	9 in reserve for training submarine crews, comprising 2 F's, 7 N's	204	90
	Total	486	129
31	Eagles (19): Held in reserve, and used for training reservists, tending aviation stations, and developing antisubmarine tactics, 24 men each	1,064	475
32	Mine sweepers (18): Held in reserve for upkeep and limited training duty, these being new ships and immediately necessary in case of national emergency 25 men each	1,206	450
33	Destroyers, first line (176): Held in reserve for upkeep and limited training duty, these vessels being modern craft, vitally needed for immediate service in case of national emergency. Twenty-five with 49 men each (1,000 tonners); 151 with 57 men each (1,200 tonners)	19,614	9,831
	Grand total	85,105	79,864

TABLE III.—*Operating forces on basis of 120,000 men, with 80,000 available for seagoing vessels.*

[To accompany Table A.]

FULL COMMISSION ON JULY 1, 1921.

1.	15 battleships, first line (including *California*)	19,789
2.	2 battleships, first line (reduced complements for flagship duty other than with battleship force)	1,800
3.	8 cruisers (miscellaneous)	3,422
4.	122 destroyers, first line	13,908
5.	87 submarines	2,562
6.	7 destroyer tenders	3,298
7.	5 submarine tenders	1,414
8.	5 shore-based submarine tenders	2,181
9.	2 repair ships	977
10.	2 hospital ships	570
11.	6 storeships	1,034
12.	2 auxiliaries (target repair)	182
13.	1 auxiliary (radio repair)	120
14.	2 aircraft tenders	686
15.	1 aircraft carrier (not yet commissioned).	
16.	2 mine layers	698
17.	35 mine sweepers and fleet tugs (12 for use with mine force)	1,818
18.	9 colliers	1,000
19.	11 oilers	1,166
20.	6 transports and cargo ships	1,118
21.	2 ammunition ships	438
22.	Fleet aviation detachment	1,180
23.	Flag complement	1,111
24.	19 patrol craft	2,991
25.	2 auxiliaries (survey ships)	369
26.	2 fish commission ships	125
27.	13 special duty craft (by stations)	821

RESERVE OR REDUCED COMMISSION ON JULY 1, 1921.

28. 1 experimental ship (*Ohio*)	600
29. 6 battleships, second line (for midshipmen's practice cruise)	3,600
30. 22 submarines (training and reserve complements)	129
31. 19 eagles (25 men each)	475
32. 18 mine sweepers (25 men each)	450
33. 176 destroyers, first line (50 per cent complements)	9,831
Total	79,864

COMMENT ON TABLE III.

Above table represents a fairly well-rounded fleet. It does not provide as adequately as is desirable for new construction due for completion during the year and precludes the possibility of our developing destroyer tactics to the extent planned with the Navy at full legal strength, 143,000 men. It naturally affects the essential shore activities of the Navy, such as aviation and radio communication, for which restricted provision only can be made on account of the reduction of men from a total of 143,000 to 120,000. It will be necessary to place out of commission during the year two battleships, first line, four battleships, second line, and certain cruisers, in order to provide for the two battleships, first line, *Maryland* and *Colorado*, and the light cruisers, first line, and other vessels now under construction. It will become essential also, during the course of the fiscal year, to take over from the builders and man 29 submarines and to provide facilities for these vessels in the shape of tenders to the extent of a total personnel of 1,805, for submarines and tenders combined. This may force certain destroyers out of commission.

The following vessels, among many others of a lesser military value, will be out of commission at the end of the fiscal year: Two battleships, first line; 17 battleships, second line; 6 cruisers, second line; 3 light cruisers, second line; 21 destroyers, second line.

STATEMENT ON REASON FOR INCREASE OF PRESENT COMPLEMENTS OVER ORIGINAL COMPLEMENTS.

The basic reason for the increase in complements of ships at present over original complements lies in the increase of fire control and radio appliances and in the lessons of the World War. Battleship radio stations have increased from one station to five stations, one of which is a direction finding station, which is used to determine the direction from which radio sound waves are coming. The development of aviation has required the installation and consequent manning of additional guns on all fighting ships. The lessons of the World War taught conclusively that all guns must be manned in battle, including the secondary battery guns on both broadsides. (It was customary before the war to provide men only for one broadside of the secondary and intermediate guns.) Certain of the auxiliary ships are shown with the original complements which they had under different operating conditions; for instance, the *Prometheus* and *Vestal* were originally colliers with a small collier complement, while now they are fleet-repair ships with a large mechanical force aboard. Generally speaking, the increase in complements of auxiliary vessels is due to the change in character of the duty which these vessels are performing now as compared with their original duty and, where the increase is slight, is due to certain new installations, such as additional radio equipment, ice machines, antiaircraft guns, etc.

TABLE B.—*Detail list of operating forces on basis of 110,000 men in Navy, with 71,000 to 74,000 available for seagoing vessels.*

Vessels in full commission: Same as in Table A, with following exceptions:

	Yield of men.
Placed out of commission: 2 battleships, first line—	
Delaware	1,263
North Dakota	1,217
20 destroyers, first line, shown in reserve in Table A, with 49 men each aboard	980

Reduced from full commission to reserve status: 42 destroyers, first line, shown in full commission in Table A, with 114 men each aboard, and reduced to 57 men each	2,394
Net yield	5,854

NOTE.—Copy of Table A is attached corrected to show conditions with 74,000 men on seagoing ships. In case seagoing availables drop to 71,000 or to any number seriously below 74,000, additional reserve destroyers will be placed out of commission.

TABLE II.—*Operating forces on basis of 110,000 men, with 71,000 to 74,000 available for seagoing vessels.*

[To accompany Table B.]

FULL COMMISSION ON JULY 1, 1921.

1. 13 battleships, first line (including *California*)	17,309
2. 2 battleships, first line (reduced complements for flagship duty other than with battleship force)	1,800
3. 8 cruisers (miscellaneous)	3,422
4. 80 destroyers, first line	9,120
5. 87 submarines	2,562
6. 7 destroyer tenders	3,298
7. 5 submarine tenders	1,414
8. 5 shore-based submarine tenders	2,181
9. 2 repair ships	977
10. 2 hospital ships	570
11. 6 storeships	1,034
12. 2 auxiliaries (target repair)	182
13. 1 auxiliary (radio repair)	120
14. 2 aircraft tenders	686
15. 1 aircraft carrier (not yet commissioned).	
16. 2 mine layers	698
17. 35 mine sweepers and fleet tugs (12 for use with mine force)	1,818
18. 9 colliers	1,000
19. 11 oilers	1,166
20. 6 transports and cargo ships	1,118
21. 2 ammunition ships	438
22. Fleet aviation detachment	1,180
23. Flag complement	1,111
24. 19 patrol craft	2,991
25. 2 auxiliaries (survey ships)	369
26. 2 fish commission ships	125
27. 13 special duty craft (by stations)	821

RESERVE OR REDUCED COMMISSION ON JULY 1, 1921.

28. 1 experimental ship (*Ohio*)	600
29. 6 battleships, second line (for midshipmen's practice cruise)	3,600
30. 22 submarines (training and reserve complements)	129
31. 19 eagles (25 men each)	475
32. 18 mine sweepers (25 men each)	450
33. 198 destroyers, first line (50 per cent complements)	11,245
Total	74,010

COMMENT ON TABLE II.

Above table contemplates as out of commission the following valuable units: Two battleships, first line; 20 destroyers, first line.

The same comment as before obtains as to vessels out of commission being subject to a certain measure of deterioration which it is not possible to control. The placing of new destroyers out of commission can not be justified on the score of economy.

The reason for the variation in seagoing availables between 71,000 and 74,000 flows from the same set of causes that act to reduce the seagoing availables on a total of 100,000 men to 60,000, instead of 66,000, which it would normally be. In other words, steps for obtaining normal replacements of men, due to discharge, etc., must be held back prior to the beginning of the approaching fiscal year, and there will thus be an initial drop to about 71,000 during the first four months of the year, from which there is calculated there will be a slow recovery until the seagoing personnel at the end of the year will number about 74,000. The temporary reduction to 71,000 will be accomplished by placing a sufficient number of reserve destroyers out of commission. It has been found disadvantageous to retain destroyers in commission with less than 50 per cent complements, unless there is some assurance of obtaining additional personnel for them within a reasonable period.

[Modified to show Table B conditions.]

TABLE A.—*Detail list of operating forces on basis of 110,000 men in Navy, with 74,000 available for seagoing vessels.*

VESSELS IN FULL COMMISSION.

No.	Item.	Original complement.	Present complement.
1	Battleships, first line (15):		
	Arizona	1,006	1,292
	Arkansas	930	1,354
	California	1,340	1,340
	Idaho	1,327	1,410
	Mississippi	1,055	1,410
	New Mexico	1,022	1,393
	New York	962	1,345
	Nevada	969	1,208
	Oklahoma	969	1,208
	Pennsylvania	951	1,298
	Tennessee	1,345	1,352
	Texas	962	1,345
	Wyoming	910	1,354
	Total	15,594	17,309
2	Battleships, first line (2) (reduced complements for flagship duty other than with battleship force):		
	Florida	845	900
	Utah	845	900
	Total	1,690	1,800
3	Cruisers (miscellaneous (8):		
	Birmingham	354	359
	Charleston	653	392
	Chester	354	358
	Columbia	436	437
	Frederick	777	585
	Rochester	502	542
	St. Louis	653	392
	Salem	354	357
	Total	4,083	3,422
4	Destroyers, first line (80), average complement of each	114	114
	Total	13,908	9,120
5	Submarines (87): 8 H's, 8 K's, 4 L's, 16 O's, 27 R's, 21 S's, 3 T's, complements 23 to 41 depending on type	18-41	23-41
	Total	2,462	2,562
6	Destroyer tenders (7):		
	Black Hawk	353	431
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	Buffalo	185	411
6	Destroyer tenders (7)—con.		
	Dixie	290	614
	Melville	268	391
	Panther	128	235
	Prairie	268	449
	Total	2,258	3,298
7	Submarine tenders (5):		
	Beaver	249	274
	Bushnell	156	201
	Camden	395	304
	Rainbow	217	298
	Savannah	376	337
	Total	1,393	1,414
8	Shore-based submarine tenders (5):		
	Fulton (New London)	199	544
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	Chicago (Pearl Harbor)	377	452
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	Bridge	150	212
	Celtic	160	157
	Culgoa	156	165
	Glacier	135	141
	Pompei	106	74
	Rappahannock	149	285
	Total	856	1,034
12	Auxiliaries (target repair) (2):		
	Lebanon	56	112
	Nanshaw	45	70
	Total	101	182

TABLE A.—*Detail list of operating forces on basis of 110,000 men in Navy, with 74,000 available for seagoing vessels.*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.	Item.	Original complement.	Present complement.
13	Auxiliary (radio repair) (1):		
	Saturn	66	120
14	Aircraft tenders (2):		
	Aroostook	251	317
	Shawmut	251	369
	Total	502	686
15	Aircraft carrier (1): Langley (not yet commissioned).		
16	Mine layers (2):		
	Baltimore	282	322
	San Francisco	286	376
	Total	568	698
17	Mine sweepers and fleet tugs (35):		
	8 fleet tugs, 27 to 56 men, depending on type	328	360
	15 mine sweepers for train service, 54 men each	1,005	810
	12 mine sweepers for mine force, 54 men each	804	648
	Total	2,137	1,818
18	Colliers (9):		
	Ajax	96	96
	Caesar	70	80
	Jason	128	110
	Mars	119	103
	Nereus	135	110
	Neptune	148	110
	Orion	139	110
	Proteus	135	180
	Vulcan	119	101
	Total	1,089	1,000
19	Oilers (11):		
	Alameda	75	75
	Arethusa	78	79
	Brazos	88	141
	Cuyama	101	141
	Kanawha	139	141
	Neches	138	145
	Patoka	75	75
	Pecos	141	141
	Ramapo	75	75
	Sabelo	75	78
	Trinity	75	75
	Total	1,060	1,166
20	Transports and cargo ships (6):		
	Beaufort	81	75
	Hancock	215	289
	Henderson	201	493
	Houston	134	134
	Kittery	77	97
	Newport News	75	120
	Total	786	1,118
21	Ammunition ships (2):		
	Nitro	219	219
	Pyro	219	219
	Total	438	438
22	Fleet aviation detachment: Consists of men of aviation ratings and training specially assigned in connection with aviation activities in the fleet. Does not include the operating complements of aircraft tenders	1,180	1,180
23	Flag complement: Comprises men specially assigned to staff duty on flagships, signalmen, yeomen, bandsmen, mess attendants, etc	(1)	1,111
24	Patrol craft (19):		
	Albany	297	297
	Asheville	148	148
	Cleveland	279	289
	Denver	279	292
	Des Moines	279	289
	Dolphin	128	153
	El Cano	97	94
	Helena	177	162
	Monocacy	46	46
	New Orleans	297	297
	Niagara	195	136
	Palos	46	46
	Pampanga	30	30
	Quiros	54	55
	Sacramento	151	152
	Tacoma	279	289
	Tulsa	148	148
	Villalobos	54	55
	Wilmington	177	162
	Total	3,161	2,992
25	Auxiliaries (survey ships) (2):		
	Hannibal	143	146
	Paducah	231	223
	Total	374	369
26	Fish commission ships (2):		
	Albatross	71	81
	Fish Hawk	44	44
	Total	115	125
27	Special-duty craft (by stations) (13):		
	Washington (3)—		
	Aramis (Sylph)	33	47
	Mayflower	168	172
	Nokomis	57	57
	Guantanamo (2)—		
	Montcalm	39	39
	Oseeola	26	27
	Santo Domingo (2)—		
	Despatch	39	47
	Potomac	36	51
	Virgin Islands (2)—		
	Tadousac	39	47
	Vixen	100	120
	Constantinople (1)—		
	Scorpion	80	84
	Guam (2)—		
	Gulfport	68	76
	Napa	39	39
	Samoa (1)—Conestoga	27	43
	Total	751	821

[1] Variable.

TABLE A.—*Detail list of operating forces on basis of 110,000 men in Navy, with 74,000 available for seagoing vessels*—Continued.

VESSELS IN RESERVE OR REDUCED COMMISSION.

No.	Item.	Original complement.	Present complement.	No.	Item.	Original complement.	Present complement.
28	Experimental ship (1):			32	Mine sweepers (18): Held in reserve for upkeep and limited training duty, these being new ships and immediately necessary in case of national emergency, 25 men each...	1,206	450
	Ohio	706	600				
29	Battleships, second line (6):						
	Connecticut	853	600				
	Kansas	853	600				
	Michigan	715	600				
	Minnesota	853	600				
	New Hampshire	853	600	33	Destroyers, first line (198): Held in reserve for upkeep and limited training duty, these vessels being modern craft, vitally needed for immediate service in case of national emergency. Five with 49 men each (1,000 tonners); 193 with 57 men each (1,200 tonners).		
	South Carolina	704	600				
	Total	4,831	3,600				
30	Submarines (22):						
	13 in reserve, comprising 3 D's, 2 E's, 7 L's, 1 M.	282	39				
	9 in reserve for training submarine crews, comprising 2 F's, 7 N's	204	90				
	Total	486	129		Total	19,614	11,245
31	Eagles (19): Held in reserve and used for training reservists, tending aviation stations, and developing antisubmarine tactics, 24 men each	1,064	475		Grand total	85,105	74,010

TABLE C.—*Detail list of operating forces on basis of 100,000 men in Navy, with 60,000 available for seagoing vessels.*

Vessels in full commission: Same as in Table A, with following exceptions—

Placed out of commission:

	Yield of men.
2 Battleships, first line—	
Delaware	1,263
North Dakota	1,217
3 Light cruisers, second line—	
Birmingham	359
Chester	358
Salem	357
4 Destroyer tenders—	
Buffalo	411
Dixie	614
Panther	235
Prairie	449
218 destroyers, first line, includes 42 destroyers shown in Table A in full commission and 176 destroyers shown in reserve	14,619
Net yield	19,882

NOTE.—Copy of Table A is attached corrected to show conditions with 60,000 men on seagoing ships. In case seagoing availables increase above 60,000 in sufficient number to afford a surplus after manning the *Maryland* and other new construction, certain destroyers will be commissioned in reserve, as there is vital reason for keeping as many destroyers as possible in material condition for immediate service in case of national emergency.

[To accompany Table C.]

Subject: Reduction of enlisted personnel.

1. The Bureau of Navigation has determined by close analysis of probable discharges, enlistments, reenlistments, etc., that it is possible to reduce the Navy to 100,000 men by July 1, 1921, and to have 75,000 of these men at sea, but since there are at present no men being accepted for enlistment, and as

reenlistments have fallen off to a marked extent, the Bureau of Navigation has found that it will be impossible to maintain the 75,000 men at sea during the course of the fiscal year. This condition appears to be caused mainly by a large number of short-term enlistments (enlistments for a period of less than four years), which has resulted in so affecting the present enlisted personnel of the Navy as to require the discharge of about 20,000 men during the first four months of the approaching fiscal year, due to expiration of enlistments alone. The normal annual turnover in a Navy of 100,000 men on a four-year enlistment would be 25,000 on the basis of expirations of enlistment, but statistics show that there will be actually discharged through expiration of enlistment during the coming fiscal year 43,123 men. In addition the Navy will lose through death, desertion, medical discharges, etc., several thousand men, which will result in a total estimated loss of between 50,000 and 60,000 men during the coming fiscal year. Past statistics show that this estimate is most conservative, and the total wastage may run much higher if the figures derived from the statistics of the first seven months of 1920 are to be trusted.

2. The net result of the new calculations made by the Bureau of Navigation indicate that the number of men available for seagoing ships will fall very rapidly during the beginning of the next fiscal year to about 60,000 men, from which figure the seagoing availables will gradually build up to about 66,000 toward the extreme end of the fiscal year. At no time during the coming fiscal year can 75,000 men be maintained at sea except at the very beginning of the year. These statistics, lately compiled by the Bureau of Navigation, have made necessary a revision of the table of ships which can be kept in commission, and there have been prepared three tables showing the operating forces on a basis, first, of 60,000 men on seagoing vessels; second, of 71,000 to 74,000 men on seagoing vessels; and third, of 80,000 men on seagoing vessels.

Operating forces on basis of 100,000 men, with 60,000 men on seagoing vessels.

FULL COMMISSION ON JULY 1, 1921.

1. 13 battleships, first line (including *California*)	17,309
2. 2 battleships, first line (reduced complements for flagship duty other than with battleship force)	1,800
2. 2 cruisers (miscellaneous)	2,348
4. 80 destroyers, first line	9,120
5. 87 submarines	2,562
6. 3 destroyer tenders	1,589
7. 5 submarine tenders	1,414
8. 5 shore-based submarine tenders	2,181
9 2 repair ships	977
10. 2 hospital ships	570
11. 6 storeships	1,034
12. 2 auxiliaries (target repair)	182
13. 1 auxiliary (radio repair)	120
14. 2 aircraft tenders	686
15. 1 aircraft carrier (not yet commissioned).	
16. 2 mine layers	698
17. 35 mine sweepers and fleet tugs (12 for use with mine force)	1,818
18. 9 colliers	1,000
19. 11 oilers	1,166
20. 6 transports and cargo ships	1,118
21. 2 ammunition ships	438
22. Fleet aviation detachment	1,180
23. Flag complement	1,111
24. 19 patrol craft	2 991
25. 2 auxiliaries (survey ships)	369
26. 2 fish commission ships	125
27. 13 special-duty craft (by stations)	821

RESERVE OR REDUCED COMMISSION ON JULY 1, 1921.

28. 1 experimental ship (*Ohio*)	600
29. 6 battleships, second line (for midshipmen's practice cruise)	3,600
30. 22 submarines (training and reserve complements)	129
31. 19 eagles (25 men each)	475
32. 18 mine sweepers (25 men each)	450
Total	59,982

COMMENT ON TABLE 1.

Above table contemplates as out of commission the following valuable units: 2 battleships, first line; 3 light cruisers; 218 destroyers, first line; 3 destroyer tenders.

While effort is made to maintain vessels out of commission in satisfactory condition, it must be recognized that such vessels are subject to rapid deterioration, and the keeping out of commission of so large a number of practically new destroyers, with the strain it will place on navy yard facilities, can be regarded as little less than disastrous to the material efficiency of the vessels. As men are obtained, as many of these destroyers as possible will be recommissioned in reserve with half-complements on board. All told, they require for maintenance in reserve, with 50 per cent complements, a total of 12,225 men.

It is believed we may count on about 66,000 men being available for seagoing vessels toward the end of the approaching fiscal year, when men begin to be received from the training stations in excess of men discharged. As the year advances, the above table of ships changes as new construction is added to the Navy, mainly through the addition of one (possibly two) battleships, first line—*Maryland, Colorado*—and certain light cruisers and submarines. These additions will be met by placing out of commission certain battleships, second line, after the conclusion of this year's midshipmen's practice cruise and certain miscellaneous cruisers, as required by the completion of vessels through the year.

TABLE A.—*Detail list of operating forces on basis of 100,000 men in Navy, with 60,000 available for seagoing vessels.*

[Modified to show table C conditions.]

VESSELS IN FULL COMMISSION.

No.		Original complement.	Present complement.
1	Battleships, first line (15):		
	Arizona	1,006	1,292
	Arkansas	930	1,354
	California	1,340	1,340
	Idaho	1,327	1,410
	Mississippi	1,055	1,410
	New Mexico	1,022	1,393
	New York	962	1,345
	Nevada	969	1,208
	Oklahoma	969	1,208
	Pennsylvania	951	1,298
	Tennessee	1,345	1,352
	Texas	962	1,345
	Wyoming	910	1,354
	Total	15,594	17,309
2	Battleships, first line (2) (reduced complements for flagship duty other than with battleship force):		
	Florida	845	900
	Utah	845	900
	Total	1,690	1,800
3	Cruisers, miscellaneous (8):		
	Charleston	653	392
	Columbia	436	437
	Frederick	777	585
	Rochester	502	542
	St. Louis	653	392
	Total	4,083	2,348
4	Destroyers, first line (80): Average complement of each	114	114
	Total	13,908	9,120
5	Submarines (87): 8 H's, 8 K's, 4 L's, 16 O's, 27 R's, 21 S's, 3 T's (complements from 23 to 41, depending on type)	18–41	23–41
	Total	2,462	2,562
6	Destroyer tenders (7):		
	Black Hawk	353	431
	Bridgeport	766	767
	Melville	268	391
	Total	2,258	1,589
7	Submarine tenders (5):		
	Beaver	249	274
	Bushnell	156	201
	Camden	395	304
	Rainbow	217	298
	Savannah	376	337
	Total	1,393	1,414
8	Shore-based submarine tenders (5):		
	Fulton (New London)	199	544
	Eagle 17 (Hampton Roads)	313	323
	Eagle 31 (Coco Solo)	357	410
	Alert (San Pedro)	385	452
	Chicago (Pearl Harbor)	377	452
	Total	1,631	2,181

TABLE A.—*Detail list of operating forces on basis of 100,000 men in Navy, with 60,000 available for seagoing vessels.*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.		Original complement.	Present complement.
9	Repair ships (2):		
	Prometheus	159	489
	Vestal	159	488
	Total	318	977
10	Hospital ships (2):		
	Relief	360	300
	Mercy	317	270
	Total	677	570
11	Storeships (6):		
	Bridge	150	212
	Celtic	160	157
	Culgoa	156	165
	Glacier	136	141
	Pompey	106	74
	Rappahannock	149	285
	Total	856	1,034
12	Auxiliaries (target repair) (2):		
	Lebanon	56	112
	Nanshaw	45	70
	Total	101	182
13	Auxiliary (radio repair) (1), Saturn	66	120
14	Aircraft tenders (2):		
	Aroostook	251	317
	Shawmut	251	369
	Total	502	686
15	Aircraft carrier (1), Langley (not yet commissioned).		
16	Mine layers (2):		
	Baltimore	282	322
	San Francisco	286	376
	Total	568	698
17	Mine sweepers and fleet tugs (35):		
	8 fleet tugs, 27 to 56 men, depending on type	328	360
	15 mine sweepers for train service, 54 men each	1,005	810
	12 mine sweepers for mine force, 54 men each	804	648
	Total	2,137	1,818
18	Colliers (9):		
	Ajax	96	96
	Caesar	70	80
	Jason	128	110
	Mars	119	103
	Nereus	135	110
	Neptune	148	110
	Orion	139	110
	Proteus	135	180
	Vulcan	119	101
	Total	1,089	1,000
19	Oilers (11):		
	Alameda	75	75
	Arethusa	78	79
	Brazos	88	141
19	Oilers (11) Continued.		
	Cuyama	101	141
	Kanawha	139	141
	Neches	138	145
	Potoka	75	75
	Pecos	141	141
	Ramapo	75	75
	Sapelo	75	78
	Trinity	75	75
	Total	1,060	1,166
20	Transports and cargo ships (6):		
	Beaufort	81	75
	Hancock	215	289
	Henderson	201	403
	Houston	134	134
	Kittery	77	97
	Newport News	75	120
	Total	786	1,118
21	Ammunition ships (2):		
	Nitro	219	219
	Pyro	219	219
	Total	438	438
22	Fleet Aviation Detachment: Consists of men of aviation ratings and training specially assigned in connection with aviation activities in the fleet. Does not include the operating complements of aircraft tenders	1,180	1,180
23	Flag complement: Comprises men specially assigned to staff duty on flagships, signalmen, yoemen, bandsmen, mess attendants, etc.	(1)	1,111
24	Patrol craft (19):		
	Albany	297	297
	Asheville	148	148
	Cleveland	279	289
	Denver	279	292
	Des Moines	279	289
	Dolphin	128	153
	El Cano	97	94
	Helena	177	162
	Monocacy	46	46
	New Orleans	297	297
	Niagara	195	136
	Palos	46	46
	Pampanga	30	30
	Quiros	54	55
	Sacramento	151	152
	Tacoma	279	289
	Tulsa	148	148
	Villalobos	54	55
	Wilmington	177	162
	Total	3,161	2,992
25	Auxiliaries, survey ships (2):		
	Hannibal	143	146
	Paducah	231	223
	Total	374	369

TABLE A.—*Detail list of operating forces on basis of 100,000 men in Navy, with 60,000 available for seagoing vessels*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.		Original complement.	Present complement.
26	Fish commission ships (2):		
	Albatross	71	81
	Fish Hawk	44	44
	Total	115	125
27	Special duty craft, by stations (13):		
	Washington (3)—		
	Aramis (Sylph)	33	47
	Mayflower	168	172
	Nokomis	57	57
	Guantanamo (2)—		
	Montcalm	39	39
	Oceola	26	27
27	Special duty craft, etc.—Con.		
	Santo Domingo (2)—		
	Despatch	39	47
	Potomac	36	51
	Virgin Islands (2)—		
	Tadousac	39	47
	Vixen	100	120
	Constantinople (1):		
	Scorpion	80	84
	Guam (2)—		
	Gulfport	68	76
	Napa	39	39
	Samoa (1): Conestoga	27	43
	Total	751	821

VESSELS IN RESERVE OR REDUCED COMMISSION.

No.			
28	Experimental ship (1): Ohio	706	600
29	Battleship, second line (6):		
	Connecticut	853	600
	Kansas	853	600
	Michigan	715	600
	Minnesota	853	600
	New Hampshire	853	600
	South Carolina	704	600
	Total	4,831	3,600
30	Submarines (22):		
	13 in reserve, comprising 3 D's, 2 E's, 7 L's, 1 M.	282	39
	9 in reserve for training submarine crews, comprising 2 F's, 7 N's	204	90
	Total	486	129
31	Eagles (19): Held in reserve, and used for training reservists, tending aviation stations, and developing antisubmarine tactics, 24 men each	1,064	475
32	Mine sweepers (18): Held in reserve for upkeep and limited training duty, these being new ships and immediately necessary in case of national emergency, 25 men each	1,206	450
	Grand total	85,105	59,982

TABLE D.—*Detail list of operating forces on basis of 143,000 men in Navy with 86,000 available for seagoing vessels on July 1, 1921.*

Vessels in full commission.—Same as in Table A, with following exceptions:

	Increase.
Placed in full commission from reduced commission:	
2 battleships, first line—	
Florida	248
Utah	250
Placed in full commission:	
2 cruisers, second line—	
Pittsburgh	811
Huron	791
22 destroyers, first line, shown in reserve in Table A with 57 men each aboard	1,471
12 mine sweepers, shown in reserve in Table A with 25 men each aboard	348
3 colliers—	
Abarenda	77
Brutus	83
Nero	70

Placed in full commission—continued:	
3 oilers—	
Maumee	125
R. L. Barnes	52
Sara Thompson	54
3 transports and cargo ships—	
Bath	77
General Alava	88
Pensacola	83
2 patrol craft—	
Chattanooga	292
Galveston	289
2 auxiliaries (survey ships)—	
Dubuque	148
Leonidas	284
Placed in commission in reserve:	
2 hospital ships—	
Comfort	163
Solace	143
Net increase	5,947

NOTE.—Copy of Table A is attached corrected to show conditions with 86,000 men on seagoing ships on July 1, 1921. The 7,000 men who will become available for sea duty during the fiscal year will be required as follows:

10 light cruisers	3,300
29 submarines	1,015
1 destroyer tender	318
2 submarine tenders	790
1 repair ship	308
1 airplane carrier	275
Fleet aviation (increase)	992
Total	6,998

TABLE IV (to accompany Table D).—*Operating forces on basis of 143,000 men, with 93,000 available for seagoing vessels, of whom 86,000 may be considered available on July 1, 1921.*

FULL COMMISSION ON JULY 1, 1921.

1. 17 battleships, first line (including *California*)	22,087
2. 2 cruisers, second line (flagship duty)	1,602
3. 8 cruisers (miscellaneous)	3,422
4. 144 destroyers, first line	16,466
5. 87 submarines	2,562
6. 7 destroyer tenders	3,298
7. 5 submarine tenders	1,414
8. 5 shore-based submarine tenders	2,181
9. 2 repair ships	977
10. 2 hospital ships	570
11. 6 storeships	1,034
12. 2 auxiliaries (target repair)	182
13. 1 auxiliary (radio repair)	120
14. 2 aircraft tenders	686
15. 1 aircraft carrier (not yet commissioned)	
16. 2 mine layers	698
17. 47 mine sweepers and fleet tugs (24 for use with mine force)	2,456
18. 12 colliers	1,230
19. 13 oilers	1,397
20. 9 transports and cargo ships	1,366
21. 2 ammunition ships	438
22. Fleet aviation detachment	1,180
23. Flag complement	1,111
24. 21 patrol craft	3,720
25. 4 auxiliaries (survey ships)	801
26. 2 fish commission ships	125
27. 13 special duty craft (by stations)	821

RESERVE OR REDUCED COMMISSION ON JULY 1, 1921.

28. 1 experimental ship (*Ohio*)	600
29. 6 battleships, second line (for midshipmen's practice cruise)	3,600
30. 22 submarines (training and reserve complements)	129
31. 19 eagles (25 men each)	475
32. 6 mine sweepers (30 men each)	180
33. 154 destroyers, first line (50 per cent complements)	8,577
34. 2 hospital ships (45 per cent complements)	306
Total	85,811

COMMENT ON TABLE IV.

Above table represents the vessels which may be manned and which it is desird to man in accordance with existing plans on July 1, 1921. The table is conditioned on the Navy not being at its full strength at the beginning of the fiscal year, or, if at full strength numerically, the large number of new recruits will be unavailable for sea duty until their training period is completed.

The 7,000 men who will become available for sea duty during the fiscal year will be required as follows:

10 light cruisers	3,300
29 submarines	1,015
1 destroyer tender	318
2 submarine tenders	790
1 repair ship	308
1 airplane carrier	275
Fleet aviation (increase)	992
Total	6,998

The following vessels, among many others of a lesser military value, will be out of commission at the end of the fiscal year: Seventeen battleships, second line; 6 cruisers, second line; 3 light cruisers, second line; 21 destroyers, second line.

TABLE A.—*Detail list of operating forces on basis of 143,000 men in Navy, with 86,000 available for seagoing vessels on July 1, 1921.*

[Modified to show table D conditions.]

VESSELS IN FULL COMMISSION.

No.		Original complement.	Present complement.	No.		Original complement.	Present complement
1	Battleships, first line (15):			2	Cruisers, second line (2) (for flagship duty):		
	Arizona	1,006	1,292		Pittsburgh	777	811
	Arkansas	930	1,354		Huron	777	791
	California	1,340	1,340				
	Delaware	999	1,263		Total	1,554	1,602
	Florida	.....	1,148				
	Idaho	1,327	1,410				
	Mississippi	1,055	1,410	3	Cruisers (miscellaneous) (8):		
	New Mexico	1,022	1,393		Birmingham	354	359
	New York	962	1,345		Charleston	653	392
	Nevada	969	1,208		Chester	354	358
	North Dakota	847	1,217		Columbia	436	437
	Oklahoma	969	1,208		Frederick	777	585
	Pennsylvania	951	1,298		Rochester	502	542
	Tennessee	1,345	1,352		St. Louis	653	392
	Texas	962	1,345		Salem	354	357
	Utah	.....	1,150				
	Wyoming	910	1,354		Total	4,083	3,422
	Total	15,594	22,087				

TABLE A.—*Detail list of operating forces on basis of 143,000 men in Navy, with 86,000 available for seagoing vessels on July 1, 1921*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.		Original complement.	Present complement.
4	Destroyers, first line (144):		
	Average complement of each	114	114
	Total		16,466
5	Submarines (87): 8 H's, 8 K's, 4 L's, 16 O's, 27 R's, 21 S's, 3 T's. Complements from 23 to 41, depending on type	10–41	23–41
	Total	2,462	2,562
6	Destroyer tenders (7):		
	Black Hawk	355	431
	Bridgeport	766	767
	Buffalo	185	411
	Dixie	290	614
	Melville	268	391
	Panther	128	235
	Prairie	268	449
	Total	2,258	3,298
7	Submarine tenders (5):		
	Beaver	249	274
	Bushnell	156	201
	Camden	395	304
	Rainbow	217	298
	Savannah	376	337
	Total	1,393	1,414
8	Shore-based submarine tenders (5):		
	Fulton (New London)	199	544
	Eagle 17 (Hampton Roads)	313	323
	Eagle 31 (Coco Solo)	357	410
	Alert (San Pedro)	385	452
	Chicago (Pearl Harbor)	377	452
	Total	1,631	2,181
9	Repair ships (2):		
	Prometheus	159	489
	Vestal	159	488
	Total	318	977
10	Hospital ships (2):		
	Relief	360	300
	Mercy	317	270
	Total	677	570
11	Storeships (6):		
	Bridge	150	212
	Celtic	160	157
	Culgoa	156	165
	Glacier	135	141
	Pompey	106	74
	Rappahannock	149	285
	Total	856	1,034
12	Auxiliaries (target repair) (2):		
	Lebanon	56	112
	Nanshaw	45	70
	Total	101	182
13	Auxiliary (radio repair) (1):		
	Saturn	66	120
14	Aircraft tenders (2):		
	Aroostook	251	317
	Shawmut	251	369
	Total	502	686
15	Aircraft carrier (1): Langley (not yet commissioned).		
16	Mine layers (2):		
	Baltimore	282	322
	San Francisco	286	376
	Total	568	698
17	Mine sweepers and fleet tugs (147):		
	8 fleet tugs, 27 to 56 men, depending on type	328	360
	15 mine sweepers for trai service, 54 men each	1,005	810
	21 mine sweepers for mine force, 54 men each	804	1,296
	Total	2,137	2,456
18	Colliers (12):		
	Abarenda		77
	Ajax	96	96
	Brutus		3
	Cæsar	70	86
	Jason	128	117
	Mars	119	103
	Nero		70
	Nereus	135	110
	Neptune	148	110
	Orion	139	110
	Proteus	135	180
	Vulcan	119	101
	Total	1,089	1,230
19	Oilers (14):		
	Alameda	75	75
	Arethusa	78	79
	Brazos	88	141
	Cuyama	101	141
	Kanawha	139	141
	Maumee		125
	Neches	138	145
	Patoka	75	75
	Pecos	141	141
	Ramapo	75	75
	Sapelo	75	78
	R. L. Barnes		52
	Sara Thompson		54
	Trinity	75	85
	Total	1,060	1,397
20	Transports and cargo ships (9):		
	Bath		77
	Beaufort	81	75
	General Alava		88
	Hancock	215	289
	Henderson	201	403
	Houston	134	134
	Kittery	77	97
	Newport News	75	120
	Pensacola		83
	Total	786	1,36

TABLE A.—*Detail list of operating forces on basis of 143,000 men in Navy, with 86,000 available for seagoing vessels on July 1, 1921*—Continued.

VESSELS IN FULL COMMISSION—Continued.

No.		Original complement.	Present complement.
21	Ammunition ships (2):		
	Nitro	219	219
	Pyro	219	219
	Total	438	438
22	Fleet aviation detachment: Consists of men of aviation ratings and training specially assigned in connection with aviation activities in the fleet. Does not include the operating complements of aircraft tenders	1,180	1,180
23	Flag complement: Comprises men specially assigned to staff duty on flagships, signalmen, yeomen, bandsmen, mess attendants, etc	(1)	1,111
24	Patrol craft (21):		
	Albany	297	297
	Asheville	148	148
	Chattanooga	.....	292
	Cleveland	279	289
	Denver	279	292
	Des Moines	279	289
	Dolphin	128	153
	El Cano	97	91
	Galveston	.....	289
	Helena	177	162
	Monocacy	46	46
	New Orleans	297	297
	Niagara	195	136
	Palos	46	46
	Pampanga	30	30
	Quiros	54	55
	Sacramento	151	152
	Tacoma	279	289
	Tulsa	148	148
	Villalobos	54	55
	Patrol craft—Continued.		
	Wilmington	177	162
	Total	3,161	3,720
25	Auxiliaries (survey ships) (4):		
	Dubuque	.....	148
	Hannibal	143	146
	Leonidas	.....	284
	Paducah	231	223
	Total	374	801
26	Fish Commission ships (2):		
	Albatross	71	81
	Fish Hawk	44	44
	Total	115	125
27	Special-duty craft (by stations) (13):		
	Washington (3)—		
	Aramis (Sylph)	33	47
	Mayflower	168	172
	Nokomis	57	57
	Guantanamo (2)—		
	Montcalm	39	39
	Oceola	26	27
	Santo Domingo (2)—		
	Despatch	39	47
	Potomac	36	51
	Virgin Islands (2)—		
	Tadousac	39	47
	Vixen	100	120
	Constantinople (1)—		
	Scorpion	80	84
	Guam (2)—		
	Gulfport	68	76
	Napa	39	39
	Samoa (1)—		
	Conestoga	27	43
	Total	751	821

VESSELS IN RESERVE OR REDUCED COMMISSION.

No.		Original complement.	Present complement.
28	Experimental ship (1): Ohio	706	600
29	Battleships, second line (6):		
	Connecticut	853	600
	Kansas	853	600
	Michigan	715	600
	Minnesota	853	600
	New Hampshire	853	600
	South Carolina	704	600
	Total	4,831	3,600
30	Submarine (22):		
	13 in reserve, comprising 3 D's, 2 E's, 7 L's 1 M	282	39
	9 in reserve for training submarine crews, comprising 2 F's, 7 N's	204	90
	Total	486	129
31	Eagles (19): Held in reserve, and used for training reservists, tending aviation stations, and developing antisubmarine tactics, 24 men each	1,064	475
32	Mine sweepers (6): Held in reserve for upkeep and limited training duty, these being new ships and immediately necessary in case of national emergency, 30 men each	1,206	180
33	Destroyers, first line (154): Held in reserve for upkeep and limited training duty, these vessels being modern craft, vitally needed for immediate service in case of national emergency. Twenty-five, with 49 men each (1,000-tonners); 129 with 57 men each (1,200-tonners)	19,614	8,577
34	Hospital ships (2) (45 per cent complements):		
	Comfort	.....	163
	Solace	.....	143
		.....	306
	Grand total	.....	85,811

[1] Variable.

TABLE B.—*Detail list of operating forces on basis of 110,000 men in Navy, with 17,000 to 74,000 available for seagoing vessels.*

	Yield of men.
Vessels in full commission: Same as in Table A, with following exceptions:	
Placed out of commission—2 battleships, first line—	
Delaware	1,263
North Dakota	1,217
20 destroyers, first line, shown in reserve in Table A, with 49 men each aboard	980
Reduced from full commission to reserve status—42 destroyers, first line, shown in full commission in Table A, with 114 men each aboard, and reduced to 57 men each	2,394
Net yield	5,854

NOTE.—Copy of Table A is attached, corrected, to show conditions with 74,000 men on seagoing ships. In case seagoing availables drop to 71,000, or to any number seriously below 74,000, additional reserve destroyers will be placed out of commission.

TABLE C.—*Detail list of operation forces on basis of 100,000 men in Navy, with 60,000 available for seagoing vessels.*

Vessels in full commission: Same as in Table A, with following exceptions—

	Yield of men
Placed out of commission.— 2 battleships, first line—	
Delaware	1,263
North Dakota	1,217
3 light cruisers, second line—	
Birmingham	359
Chester	358
Salem	357
4 destroyer tenders—	
Buffalo	411
Dixie	614
Panther	235
Prairie	449
[illegible] destroyers shown in Table A in full commission and 176 destroyers shown in reserve	14,619
Net yield	19,882

NOTE.—Copy of Table A is attached corrected to show conditions with 60,000 men on seagoing ships. In case seagoing availables increase above 60,000 in sufficient numbers to afford a surplus after manning the *Maryland* and other new construction, certain destroyers will be commissioned in reserve, as there is vital reason for keeping as many destroyers as possible in material condition for immediate service in case of national emergency.

Admiral COONTZ. With a force of 120,000 men we would keep in full commission on the 1st of July, 15 battleships, first line, including the *California;* 2 battleships, first line, with reduced complements, for flagship duty, other than with the battleship forces; 8 cruisers 122 destroyers, 87 submarines, 7 destroyer tenders, 5 submarine tenders, 5 shore-based submarine tenders, 2 repair ships, 2 hospital ships, 6 store ships, 2 auxiliaries for target repair, 1 auxiliary for radio repair, 2 aircraft tenders, 2 mine layers, 35 mine sweepers and fleet tugs (12 for use with mine force), 9 colliers, 11 oilers, 6 transports and cargo ships, 2 ammunition ships, 19 patrol vessels, 2 survey ships, 2 fish commission ships, 13 special-duty craft (7 stations).

We would have in reserve or reduced commission 1 experimental battleship, the *Ohio*; 6 battleships, second line, for midshipmen; 22

submarines for training and with reserve complements, 19 Eagle boats, 18 mine sweepers, 176 destroyers of the first line with 50 per cent complements.

That would place at sea 80,000 men, or in exact numbers, 79,864 men. I have also prepared tables as to what we could do if we had to come to 110,000.

Senator SWANSON. Do you name the 15 battleships? Have you the names of those 15 battleships?

Admiral COONTZ. Yes, sir; we have them all outlined.

Senator SWANSON. Will you also put in there the complement of men that you estimated for at the time they were constructed by the constructor?

Admiral COONTZ. Yes, sir.

Senator SWANSON. I notice that some of these ships they construct them to carry 800, and they fix up a complement of 900?

Admiral COONTZ. That is true, and that has been largely due to development of fire control.

Senator SWANSON. And in addition to that, during the war you might have casualties. But during a peace basis you would not need that?

Admiral COONTZ. No. Of course, another thing we have had to contend with for a long time is the fact that we have many boys in the Navy instead of grown men.

Senator SWANSON. What is the earliest battleship you include in the 15?

Admiral COONTZ. The earliest battleship is the *Delaware*. Two of them stay in and two go out.

Senator SWANSON. You have 122 destroyers. Why do you need that many?

Admiral COONTZ. We need 122 destroyers for use with the two branches of the fleet and for use abroad. We have now in the Black Sea and in the Adriatic Sea and in Europe 18 destroyers. We would like to bring them home, and we have asked the State Department, but the situation over there is such that they are unwilling to allow a single ship to come home. We want 36 in the Pacific, 36 in the Atlantic, 18 in Chinese waters and the Far East, 12 in Europe, and the others as light mine layers suitably distributed.

Senator SWANSON. When you fix upon these 15 battleships, and the 2 battleships, first line, reduced complement, what is the basis of the organization of those battleships into squadrons or fleets?

Admiral COONTZ. In the Pacific we should have seven of them and in the Atlantic eight.

Senator SWANSON. I know when we were getting up the naval program of 1916 we fixed upon the number of destroyers and the number of submarines that ought to accompany a fleet in proportion to the number of battleships. Do you keep up that proportion, or what proportion of destroyers do you expect to accompany the fleet?

Admiral COONTZ. We expect with each of those to have 36.

Senator SWANSON. Is not that far in excess of what was considered a well-rounded fleet in the program of 1916?

Admiral COONTZ. The destroyers have been increased. In the first place we had very few.

Senator SWANSON. How many destroyers did the general board recommend as being necessary to accompany a squadron of four battleships when they made their recommendation in 1916?

The CHAIRMAN. You seem to be assuming the number of destroyers is based entirely on the number of battleships.

Senator SWANSON. No.

The CHAIRMAN. There are many other duties they perform besides that.

Senator SWANSON. In preparing that program the General Board said a well-rounded fleet ought to have so many submarines and so many destroyers, and I want to know to what extent that basis is being carried out now.

Admiral COONTZ. I don't believe it has been materially changed, Senator.

Senator SWANSON. Do you remember what was considered the basis at that time?

Admiral COONTZ. I do not, offhand.

Lieut. Commander HILL. We had six during the war.

Senator SWANSON. Six for each battleship, and in peace I think it was four for each battleship. I remember that when we fixed up the program in 1916 we tried to carry out the idea of the General Board of the Navy Department as to what was a complete and well-rounded fleet.

Admiral COONTZ. This would differ very little from that, 90 against 72. The other destroyers are now abroad. I think we have about 12 in the Black Sea and the Near East now.

Senator SWANSON. If European countries were such that they could be withdrawn how many destroyers would you need to have a well-rounded fleet in active service?

Admiral COONTZ. We would need 36 and 36 and 18. That would be the lowest number we feel we could get along with. It would be 90, not counting those for use with the mine forces.

Senator SWANSON. How many men do you have on an average for these destroyers?

Admiral COONTZ. It is 114, Admiral Washington?

Admiral WASHINGTON. One hundred and fourteen.

Senator SWANSON. Take the submarines. What is the proportion of submarines that you usually require to, say, a squadron of four battleships? Do you remember the basis on which that was fixed up?

Admiral WASHINGTON. No, sir; I do not think it was ever figured that way.

Admiral COONTZ. We will have, Senator, when we get them all done, 133 submarines. We have about 100 of them that will be ready, I think, the 1st of July, and we propose to keep 87 of them in commission.

Senator SWANSON. Let me ask you about the 87. The submarines have no use much except to practice for submarine work in time of war. That is the main use to which you put them now?

Admiral COONTZ. That is a practical use, for practical work and training. We have to put them through every possible scheme, and also they take out and place in shape new vessels, run their drills, and everything of that character.

Senator SWANSON. About how many men would you have in the submarine force on a basis of 120,000 men; what would the submarine force amount to?

Admiral COONTZ. It is right there on that list.

Senator SWANSON. Two thousand five hundred and sixty-two men; I see that.

Admiral COONTZ. Yes, sir.

Senator SWANSON. In your estimate you only require for your battleships 19,789 men?

Admiral COONTZ. Yes, sir.

Senator SWANSON. And for your destroyers you take nearly as many as you do for your battleships, namely, 13,908?

Admiral COONTZ. Yes, sir.

Senator SWANSON. And for your submarines, 2,562. You think it would be well to keep the submarine force well practiced?

Admiral COONTZ. Yes, sir.

Senator SWANSON. Because it takes a long time to learn to be an expert in the manipulation and operation of submarines, does it not?

Admiral COONTZ. Yes, sir.

Senator SWANSON. Both in mechanical work and in skill in connection with their use?

Admiral COONTZ. In every line.

Senator SWANSON. Do you think you need 13,000 men in the destroyer service?

Admiral COONTZ. Yes, sir; those vessels, Senator, are new. They have to be kept in condition; they have got to drill in the fleet, go through all the maneuvers.

Senator SWANSON. Of what benefit is service on a destroyer with very small guns to a man in service compared to being on a battleship with its large guns?

Admiral COONTZ. There is not such a difference.

Senator SWANSON. To what extent does service on a destroyer equip a man for service on a battleship, except getting what they call the "sea instinct"?

Admiral COONTZ. In regard to the officers it makes men of them. They get the sea habit. The officer learns how to train men, he learns how to fire torpedoes, to run the engines. In the case of the men they are trained for destroyer work, and even a man that runs a small gun gradually moves up until he gets to the larger one.

The real thing about those destroyers, though, Senator, outside of the fact that they have got to teach them scouting, screening, and every other thing that has now come up, is that we have no light cruisers. That is one reason we want to keep more destroyers in.

Senator SWANSON. When will your light cruisers be available? How far off is that?

Admiral COONTZ. They will begin to come along this fall, if I am correct.

Lieut. Commander HILL. August 1 was the date, but I believe that has been postponed.

Senator HALE. How many will come along by July 22?

Admiral COONTZ. We did expect 10 of them. I hope we will get 8.

Senator HALE. Not enough to make a full rounded fleet?

Admiral COONTZ. No, sir.

Senator HALE. Destroyers are needed to take their place?

Admiral COONTZ. And to carry out the policies of the fleet.

Senator HALE. How many destroyers have you?

Admiral COONTZ. We have altogether 298 of the first line and 21 of the second line, and of those I think some 31 are not yet completed.

Senator HALE. What are you going to do with the destroyers that are completed?

Admiral COONTZ. We will put 198 of them in reserve with 50 per cent complement.

Senator HALE. Not in ordinary or out of commission?

Admiral COONTZ. No, sir.

Senator HALE. How about the battleships—the older battleships?

Admiral COONTZ. The old battleships will go out of commission, and I doubt if any beyond the *Delaware* class will ever be used again except in case of sudden war. All of the *Nebraska* class and the *Virginia* are now out. We are holding 6 to take the 2,000 midshipmen on their summer cruise, and then they go out forever, except for use as auxiliaries to the fleet with reduced complement. One of those we are using for experimental purposes.

The CHAIRMAN. What six are those you refer to?

Admiral COONTZ. The six include the *Minnesota*, *New Hampshire*, *Kansas*, *Connecticut*, *South Carolina*, and *Michigan*. It will be their last cruise.

Senator SWANSON. I see here that for destroyers, submarines, destroyer tenders, submarine tenders, and shore-based submarine tenders, you have 23,000 men, more than you have for the entire battleship fleet. I may be mistaken, but it seems to me that in time of peace, when men do not take so long to be trained for destroyer work like it does for submarine work, that the number of ships in active commission as destroyers could be right materially reduced. I can see an advantage in putting a young man with three or four destroyers under him from the experience he has as a commanding officer, and training, etc., but, in addition to the expense incident to keeping all of these destroyers in operation at this time, it will keep a great many of these young officers from being trained on battleships, will it not?

Admiral COONTZ. Of course, they get a training, and if you cut out these destroyers——

Senator SWANSON. I do not mean to cut them all out. I am just talking frankly. It seems to me that you could reduce them without reducing the efficiency of your fleet on a peace basis, and for necessary training. It seems to me in looking at this that you have an excess of that character of craft.

Admiral COONTZ. No, sir; I don't think so, Senator. You see the battleships now have gotten so they are the thumb on a man's hand, and, that with the battleships for their offensive and defense work, you have got to have the destroyer, the submarine, the air force, and everything that goes with it. A battleship itself no longer goes alone.

Senator SWANSON. No one is talking about it going by itself. It seems to me if you carry out the theory of getting efficiency for time of war, but not right during war conditions, it seems to me you could reduce somewhat in this respect and not destroy the efficiency of your fleet at all.

Admiral COONTZ. No, sir.

Senator SWANSON. If you did not have those destroyers you would not construct them for this purpose now, would you?

Admiral COONTZ. We would construct enough to round out the fleet.

Senator SWANSON. We did that in 1916, but on account of the late war, and with England asking us to please construct destroyers in order to fight the submarines, we increased the number.

Admiral COONTZ. Look at the bottom line, and see how many we have put out—198.

Senator SWANSON. I know.

The CHAIRMAN. Is your 120,000 men based on keeping, among other conditions, 198 destroyers in reserve?

Admiral COONTZ. Yes, sir.

Senator HALE. Would it not be possible, Admiral, to take some of these destroyers that are now in reserve and put them either out of commission or in ordinary, and reduce the crews thereby?

Admiral COONTZ. It would be possible except that the cost in the upkeep and the endeavor to keep them in shape would be so far the other way that it is not deemed advisable. Most of these are brand new ships.

Senator HALE. And they would deteriorate?

Admiral COONTZ. They would deteriorate rapidly. But with a 50 per cent complement on them they are kept in prime condition, and would be immediately ready for service in case of war.

Senator HALE. Senator Swanson spoke about the training of officers. Is not an officer who is put in command of a destroyer getting better training for his future in doing that work than he would if he were in a subordinate position on a battleship?

Admiral COONTZ. That is a phase in the life of every officer. He ought to be a submariner, an aviator, a destroyer man, and then a battleship man.

Senator HALE. And are not the officers on the destroyer with him getting better training in those responsible positions that they would have on the destroyer than they would in the subordinate positions they would naturally occupy on a battleship?

Admiral COONTZ. Unquestionably.

Senator HALE. It is really a good training for those officers?

Admiral COONTZ. Yes, sir.

Senator SWANSON. Let us see your program for 110,000 men.

The CHAIRMAN. Before we proceed with that I would like to ask the admiral what kind of organization you have on your first-line ships on the basis of 120,000 men. How far below the full war complement of a battleship would your force be?

Admiral COONTZ. It would be about 80 or 85 per cent, would it not?

Admiral WASHINGTON. If we had 120,000 men with the number of battleships we have got we would have a full complement because so few battleships would be placed in reserve.

The CHAIRMAN. A full peace complement?

Admiral WASHINGTON. Yes.

The CHAIRMAN. I mean war complement?

Admiral WASHINGTON. We have only one complement.

The CHAIRMAN. Would you have a complete organization of officers and men on your battleships with this basis of 120,000 men?

Admiral WASHINGTON. No, sir; not exactly that. When I said we have only one complement, I mean that is a war complement. We have a war complement only. But the ships have always less men than that, anywhere from 100 to 150 men less than we would carry in war times. We do not call that a complement. It is simply the allowance that we are giving them to run on.

The CHAIRMAN. I am asking you about the war complement. How much below the war complement of a battleship would you be?

Admiral COONTZ. For these 15 battleships we would have sufficient men for them if put on a regular war complement.

Senator SWANSON. I have to go to attend to some other business, but I wish you would put in there the number of men you have on each ship.

Admiral COONTZ. Yes, sir; I will.

Senator SWANSON. And what the estimate was when it was constructed?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. What we would like to get clearly stated, so that it would be understood and could be stated to the Senate, is a plain statement of the extent to which the ships of the Navy that we will retain or acquire, to constitute the Navy, will be reduced below the personnel organization at these various numbers that have been suggested, 120,000 and 110,000. I understand from Admiral Washington that with 120,000 men that we would have a full complement of officers and men on your battleships.

Admiral COONTZ. Those that are in commission?

The CHAIRMAN. Yes.

Admiral COONTZ. Yes, sir.

The CHAIRMAN. Does that also apply to the destroyers and the cruisers such as we have?

Admiral COONTZ. Those few that we keep.

Senator HALE. To what extent would you have to change it if it were cut down to 110,000?

Admiral COONTZ. At 110,000 we would come down to 31 battleships.

Senator HALE. You would not cut down the complement on the ships, but cut down the ships?

Admiral COONTZ. Cut the ships; yes, sir. The number of men would be reduced. The showing would be in reduced commission. We would reduce the number of ships in commission from 368 to 319. The number of vessels in reserve would be increased from 242 to 264. That would be the difference. The destroyers would be reduced.

Senator HALE. To what extent would the destroyers be reduced?

Admiral COONTZ. The destroyers would be reduced from 122 to 80 in full commission.

The CHAIRMAN. That is on the basis of 110,000 men?

Admiral COONTZ. To 110,000, that would be the proper reduction, to just throw out that many more destroyers.

The CHAIRMAN. What would be the effect of coming down to 100,000?

Admiral COONTZ. To come down to 100,000 we would still hold on to 13 battleships for the battleship force, 2 battleships of the first line for flagship duty other than with the battleship force. The cruisers would come down to 5, destroyers 80, submarines 87. Certain auxiliaries would be reduced, and the ships in reserve or reduced com-

mission would be down to 1 experimental ship, 6 battleships, 22 submarines, 19 Eagle boats, 18 mine sweepers, and all the others would be out of commission absolutely.

The CHAIRMAN. Have you made allowance for reducing the number of ships that are new ships that will be coming in, now under construction?

Admiral COONTZ. We expect by putting the older ships out of commission to keep the new ships going, and our plans are made along that basis. Those that are getting older with a nonmilitary value would go out.

The CHAIRMAN. When the present program is completed according to a statement I have here, you will have 27 capital ships. Do you include those in your estimate there?

Admiral COONTZ. No, sir; because this only carries for the next fiscal year. When we come to those, if we have them all in commission, we would need up to our limit of 143,000 men, which we have not now.

Senator HALE. Do you expect any new battleships to come into commission during the next fiscal year?

Admiral COONTZ. Yes, sir; the *California* and the *Maryland;* possibly the *Colorado*, at the end of the fiscal year.

Senator HALE. When they come into commission you will retire some of the older ones?

Admiral COONTZ. Yes, sir.

Senator HALE. You spoke of reducing the number of cruisers, if we have only 100,000 men. Why is that done? Past experience has shown that that is the place where we are weakest, has it not?

Admiral COONTZ. Yes, sir; but we have to cut out cloth with what we have.

Senator HALE. You would rather keep your destroyers for the fleet and give up the cruisers?

Admiral COONTZ. Yes, sir: because the cruisers we have now are pretty poor cruisers.

The CHAIRMAN. What is your recommendation as to the number of men we should have?

Admiral COONTZ. Of course we feel, Senator, that we need the 120,000 men to efficiently carry on the Navy for the coming year, as we see it, to give us a well-rounded fleet that we can maneuver with and drill; that in order to do that we need all we have at present.

The CHAIRMAN. Can you give us some idea about the relative preparation for war that is involved in the various figures as to the full personnel of the Navy? Several questions have been asked about how many would be necessary or sufficient for a peace basis. Of course there are various sorts of peace bases. We have one peace basis when we take it for granted that we are not going to have any war. But the whole purpose of establishing and maintaining a navy is preparation for possible war.

Senator BALL. What is the difference between a peace basis and a war basis?

The CHAIRMAN. What I am trying to get at is some idea as to the time and the difficulty of building up a personnel in case of a sudden naval emergency.

Admiral COONTZ. At present, of course, we have just enlarged our personnel. I think we have got up to 135,000, because we were allowed an average of 120,000. We started in not many months ago with only 99,000 men; 38,000 of those had been in the Navy before. The rest were recruits. We built up to that number and were training them in various camps, as we are to-day, before we began this reduction.

The idea for the coming year was that these 120,000 men would man a fleet sufficient to carry out our policies, to carry out the maneuvers, the drill, and the training. We still have several hundred thousand reservists who are dropping out at a very fast rate. If a war came suddenly, these vessels that have 50 per cent complement would be immediately manned by reservists, and in a very short time be ready for service.

The CHAIRMAN. The vessels that have the 50 per cent complement, are they in reserve?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. I wish you would explain, in brief, the difference between reserve, in ordinary, and out of commission?

Admiral COONTZ. To start with, "out of commission" means they are laid up at a navy yard or at a base with no stores on board and no men.

Senator HALE. You have a janitor or a caretaker?

Admiral COONTZ. What they call a ship keeper. I suppose there would be three of those for maybe two or three or more ships; that would be all. There would be nothing on board that could be stolen or taken away.

"In ordinary" means with part of her stores aboard and a very reduced crew. It might be 8 or 10 or 12 per cent, the idea being that with those people aboard, to keep it clean and to look after the stores, she could be put in commission much quicker than if she was entirely out and everything off.

Senator HALE. She would be packed in grease?

Admiral COONTZ. Yes, sir. In reserve, a vessel should be capable, very quickly on her crew coming aboard, to get to sea. She would have practically all her stores on board, her engines would be working, and she would be all ready to go out by filling up her complement with crews from other vessels.

The CHAIRMAN. Do you say she has 50 per cent of her personnel on board?

Admiral COONTZ. At present, in the case of a vessel like a destroyer, we cut down as low as 25 men out of 114. Then we lifted that to 35. But to be in absolute readiness for quick, complete work, and almost immediate use, we would bring it up to 50 per cent of full complement, if we put all those 198 destroyers in reserve.

The CHAIRMAN. How much of a fleet have we in the Orient now?

Admiral COONTZ. In the Orient we have one old cruiser, the *Huron*, whose name was changed from the *South Dakota*. We have ordered and have on the way there 18 destroyers. We have two gunboats that go up the Chinese river, the Yangtze, to look out for our interests. We have two or three very old ones in the neighborhood of Hongkong.

The CHAIRMAN. Gunboats?

Admiral COONTZ. Yes, sir; and we have a few gunboats about Manila. Those gunboats, with the exception of two, we captured from the Spanish in 1898, and they are just about to fall apart. We have a couple at Guam, little tugs or station ships. The Asiatic Fleet with its personnel is as follows:

UNITED STATES ASIATIC FLEET.

The following are the vessels assigned to the Asiatic Fleet, together with the number of men on board each ship:

Huron (ex-South Dakota) flagship	856
Cruisers:	
New Orleans	297
Albany	297
Patrol vessels:	
Helena	162
Pampanga	30
Wilmington	162
El Cano	93
Villalobos	55
Quiros	55
Palos	46
Monocacy	46
Mine detachment:	
Hart	114
Rizal	114
Heron	54
Finch	54
Avocet	54
Destroyers:	
Panther (tender)	235
Tarbell	114
Yarnall	114
Upshur	114
Greer (F.)	114
Elliot	114
Lea	114
Chandler	114
Southard	114
Hovey	126
Long	114
Broome	114
Alden	114
Auxiliaries:	
Ajax	96
Piscataqua	47
Abarenda	77
Pompey	74
Genessee	52
General Alava	88
R. L. Barnes	52
Bittern	54
Napa	39
Sara Thompson	54
Total	4,737
In addition there are personnel on district craft and naval shore activities to the number of about 724, including 30 men looking out for submarines out of commission at Cavite and awaiting sale or final disposition	724
Grand total	5,461

Senator HALE. You say we have 10 destroyers in the Adriatic. What do they do?

Admiral COONTZ. I said 12 in the Black Sea and the Near East.

Senator HALE. How many in the Adriatic?

Admiral COONTZ. Four in the Adriatic, and the old *Olympia*.

Senator HALE. What are they doing in the Black Sea?

Admiral COONTZ. In the Black Sea and the Near East they are looking out for American interests, and taking care of various American refugees along the coast there. Some duties come up for them all the time.

In the Adriatic we have been unable to feel that we could safely withdraw, because ours, we feel, has been the influence there that has stabilized conditions. Then, we have one or two up along the Baltic where troubles are not yet at an end. We have one old flagship over there, the *Pittsburgh*, formerly the *Pennsylvania*. We use those old cruisers for flagships. The European force, with its personnel, is as follows:

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EUROPEAN FORCE.

The ships assigned to the European station with their complements are as follows, the complements being kept as nearly as possible filled at all times:

	Complement.
Flagship, Pittsburgh	697
Cruisers:	
Olympia	402
St. Louis	392
Chattanooga	292
Destroyers:	
Barker	114
Borie	114
Brooks	122
Childs	114
Edwards, John D	114
Fox	122
Gilmer	122
Humphreys	114
James, Reuben	114
Kane	122
McFarland	114
Overton	114
Sands	114
Smith Thompson	114
Sturtevant	114
Tracy	114
Whipple	114
Williamson	114
Subchasers:	
No. 96	14
No. 338	14
Station ship at Constantinople, Scorpion	84
Total	3,979

There are required for the service of this force the following fuel ships, which also carry the necessary supplies which can not be secured on the European station:

	Complement.
Collier, Vulcan	101
Tankers:	
Alameda	75
Ramapo	75
Trinity	75
Total	326

Senator HALE. During the war, when the war started in 1917, we had a good many ships in reserve, did we not?

Admiral COONTZ. I think we did at that time; had a number that were in reserve or not in commission.

Senator HALE. In changing those reserve ships that were in reserve over into the active service was it done immediately, or did it take a very long time to do it?

Admiral COONTZ. It took some time, because a number of them needed repairs and changes, and, of course, at that time we had no reserve whatever.

Senator HALE. The same would be true now if these vessels were put in reserve?

Admiral COONTZ. The same would be true now, depending on how many men we left aboard the ship, and what shape they are in. I feel we would be better off now than in 1917, because we would have somebody out in the country to call on.

Senator HALE. But in no event would you consider that vessels which were in reserve could be used at once with the fleet?

Admiral COONTZ. There are, of course, a number of vessels in reserve that would have to be more or less put in shape, but we could get them in with the fleet if we had them with this 50 per cent complement very quickly.

Senator HALE. Within a few days or few weeks?

Admiral COONTZ. Some of them in a few days and some of them in a few weeks. In the other war we had been robbing battleships of crews to go on cargo vessels and armed craft. Another war would posibly be different.

The CHAIRMAN. We will pass on from the question of personnel, and if you have any other points you want to bring out we will be glad to have them.

Admiral COONTZ. We will be glad to put in the hearing these ships by name, and what we intend to do.

Senator HALE. I would like to ask one question before we leave the subject of personnel. If we are going to cut down our personnel and establish 100,000 as the full personnel for the future is there any need of going ahead and increasing our naval program?

Admiral COONTZ. Yes, sir; there would be the need.

Senator HALE. But it is not looking after the future naval program in any way to cut it down to 100,000 men?

Admiral COONTZ. It is not looking after the future, Senator, if it can possibly be avoided, because with the new ships coming on and the necessity for trained men and with the knowledge of the number that have to be discharged the coming fiscal year, it is something we should not do unless driven to it, because it takes time and everything else to train these men to handle those great big vessels.

Senator HALE. I recall at some time before the war the personnel of the Navy was not increased as the General Board wanted to have it by some 19,000 men, I believe?

Admiral COONTZ. Yes, sir.

Senator HALE. And a number of years afterwards the fact they had not been increased at that time has a disastrous effect on the Navy?

Admiral COONTZ. Yes, sir.

Senator HALE. The same would be true at a future time if we should cut down the personnel at the present time below where it should be, would it not?

Admiral COONTZ. It would seriously hurt us, Senator, in case of any sudden emergency and would have a great bearing on the future for this reason: That the sailorman looks on and would see what was doing to happen. He would think they are going to cut us down, and a great many of them are married and few of them get shore duty, and I believe its effect on the morale is going to be bad to cut down unless we are absolutely driven to it. What you say is true; we did not provide enough, and we paid for it.

Senator HALE. We paid for it very severely.

The CHAIRMAN. What appropriation would be required, or what increase in appropriation, for the increase of 20,000 men over the amount provided for by the House?

Admiral PEOPLES. We have all the details of it and itemized.

The CHAIRMAN. We would like to have that itemized so for as the different elements are concerned.

Admiral PEOPLES. Would you like to have it now or have it brought out under the various subheads?

The CHAIRMAN. Probably you will have some statement to make later, and we can take that up then.

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. Have you gone over this part, Admiral?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. Are there any particular things that you want to call the committee's attention to in it or out of it?

Admiral COONTZ. I can talk on the question along a few lines. There were a number of points of order made in the House on little clauses in the bill that naturally should go back.

The CHAIRMAN. On the second page of the bill, did you notice that the House has stricken from the bill, as reported by the committee, lines 14 to 17, the words, "and for mileage, at 5 cents per mile, to midshipmen entering the Naval Academy while proceeding from their homes to the Naval Academy for examination and appointment as midshipmen?"

Admiral COONTZ. My understanding is that that was stricken out on a point of order, and I would ask Admiral Peoples to explain that clause. We would like to have that restored.

Admiral PEOPLES. For many years, Mr. Chairman, the traveling expenses of the midshipmen, upon their entrance to the Naval Academy, have been paid by the Government. Two years ago, in order to simplify the matter each midshipman was allowed by law the sum of 5 cents a mile as mileage to cover his actual traveling expenses.

The CHAIRMAN. You say their actual expenses?

Admiral PEOPLES. Yes, sir. They averaged about 5 cents a mile. It is appropriation law, and as such, under the legislative rules, is subject to a point of order when the bill, at a new session, is reported from the House Appropriations Committee.

The CHAIRMAN. What we are interested in is not so much the preliminary status of it as the views of the department in regard to the merits of the appropriation?

Admiral PEOPLES. It should be reinstated, sir, undoubtedly.

The CHAIRMAN. How long has it been since the Government has been paying expenses of these appointees to the academy. Have they always done it, in your recollection?

Admiral PEOPLES. For 25 years, to my positive knowledge.

Admiral COONTZ. They were doing it 40 years ago.

The CHAIRMAN. I would like to ask you about this change made in the bill as it was reported by the House committee, on page 3, lines 15 to 20:

Provided, That no part of this appropriation shall be available for the expense of any naval district unless the commandant thereof shall be also the commandant of a navy yard, naval training station, or naval operating base.

Admiral COONTZ. I will have to tell you very frankly about that. The Secretary of the Navy and myself do not agree on it. He is willing that the clause should remain in. I think it was put in with the idea that it would be an element of economy. We have districts all over the United States and have had since 1903, just as the Army has and just as the Treasury and various others have. When the war come on they each one had a commandant of the district irrespective of the commandant of the navy yard, which were most valuable assets. They looked out for war supplies and handled the smaller craft, and everything of that sort. We accumulated 300,000 or 400,000 reservists during the war, and we still have probably some 200,000. The Navy Department, of its own option, has reduced those districts down until only three of them now have commandants outside of the navy yards—Boston, New York, and San Francisco. In the first district, for instance, there is the Portsmouth Navy Yard, Boston Navy Yard, torpedo station, war college, and any number of minor adjuncts. If I want anything done out there I ask the commandant of the district to do it. He handles all the tugs, has all the people at his disposal, and everything of that character.

In New York, for instance, there is what we call a pool of all shipping. Before we had the pool there were tugs at the navy yard, and tugs everywhere else. Now, by having them all at one place, one man in New York has the control.

Also the commandant of the district is the man that we use in this great demobilization which started sometime back and is still going on. He is not connected with any separate identity there and he can go through it with an ax and cut them out.

I feel that that legislation there is really holding down the hands of the department and the Chief of Operations. In Boston the commandant's office is in the navy yard. It is at no expense. In New York it is now in the supply base in Brooklyn, and the officials of the city of New York are giving us free a certain new central location. In San Francisco we pay rent, but we hope later on to have the commandant of the district and the commandant at Goat Island combined in one. That would leave just two. The expense connected with this is that the district commandant has a certain amount of clerks. On the other hand he is the man that saves us the money as we cut them down.

The CHAIRMAN. What is your judgment as to the respective economies of the two systems?

Admiral COONTZ. My judgment is it is more economical to have the commandants in those three districts until we can reduce them down to two or one than it is to give the job to another man who is already a commandant and has a pretty big job on his hands. I had the honor of being the commandant of a district and of a navy yard during the war, and I managed to survive it. I was finally relieved by two admirals to keep the thing going. Of course, now, it is back to where one man does the job. In all the 16 districts we have reduced all of them except these three. We have in contemplation reducing one more, and maybe two.

The CHAIRMAN. You think there ought to be discretion left in the department?

Admiral COONTZ. I do. I feel that I am an economist.

The CHAIRMAN. As to when that rule should be applied and when it should not?

Admiral COONTZ. I feel that I can bring them down myself.

STATEMENT ON NAVAL DISTRICTS.

1. It comes as a matter of some surprise that a question is again raised in regard to naval districts. It was believed that the hearings of last year had effectually dispelled all doubts that might have been entertained as to the essential necessity of the naval district organization, and that it was made clear that any direct expense which might be traceable to the upkeep of the district organization was in reality merely a transfer of charges which, if not listed against naval districts, would be absorbed elsewhere, and not only absorbed in their sum total, but very considerably increased, in an indirect way, by the lost motion that would result in the endeavor to operate a multitude of small activities from the Navy Department, keep them coordinated, prevent them from duplicating activities, and safeguard them from the losses and wastes inseparable from many independent and self-contained units. The district organization conserves the essential independence of these units, but, while carrying on without interference their own proper functions, they are closely interlocked and under a common control as to those things in which they must all share or be served alike.

2. It should be conspicuously kept in mind that naval districts are no new thing. Their genesis was essentially military, and may be traced to certain discussions taken up in the Naval War College before the Spanish-American War which had to do with the subject of coast defense and naval activities on land as auxiliary to the strictly offensive machinery and effort of the Navy afloat. The Navy was small and its administration simple when these discussions began, but they afforded the groundwork for the activities of the Navy for the defense of the Atlantic coast and harbors during the Spanish-American War. The measures taken at that time were pitifully meager, and it is considered fortunate that the Spaniards did not put their efficiency to a practical test. However, the need for such measures was so apparent that the General Board, after its establishment in 1900, took up the consideration of a plan for naval coast defense which eventually led in 1903 to the establishment of naval districts.

3. It is pertinent at this point to invite attention to the need that other Government departments have felt for districting the country for the purposes of economical and efficient administration. Primarily, may be mentioned the War Department, which has found it essential to have "departments" or "corps areas." The Treasury Department has its Coast Guard districts and its Public Health Service districts. There are the lighthouse districts. Then there are the numerous purely civil districts, such as those under the Departments of Justice and Commerce and the Treasury. The most cursory study and investigation of this subject reveals the basic administrative need that has forced upon the governmental departments this essential decentralizing agency—the district organization. The district organization is to naval shore activities what the fleet or squadron organization is to the Navy afloat. Its comparatively recent development as an essential need to the economical administration of the Navy lies in the fact that the character of naval warfare has suffered a change along material lines. Before the Spanish-American War the tradition of sail power

was strong upon the Navy. Most of our ships actually carried sails as a part of their regular equipment. A sailing vessel is only remotely tied to the shore; she need visit it only at infrequent intervals. The Navy itself was small and a navy yard contained within its immediate confines practically all that was needed to fit out and maintain any of our small squadrons.

4. With the growth and expansion of the Navy and the abandonment of sail power, the essential shore activities have multiplied. The areas occupied by our older navy yards have again and again been found insufficient to quarter the activities that must be attendant upon, as a sort of "overhead," the upkeep and maintenance of a Navy adequate to the country's defense. This increase and multiplication of shore activities is not one that has been willfully fostered by the Navy Department. It has been forced on the Navy as surely and as irresistibly as the increase in the number and power of our ships have been forced upon the country at large. Our yards in congested city districts have been found incapable of the expansion necessary to carry on the essential repair and upkeep work on our ships, for which they are primarily designed, and to harbor all the attendant facilities besides. It follows, therefore, that gradually coal piles, fuel tanks, supply storehouses, receiving stations or barracks for personnel, hospitals, and so on have been forced to find locations outside of the confines of yards proper. Naval communications, involving far-reaching radio activities, with high-power stations and navigational aids of various sorts; submarine flotillas, which can be trained at tremendously less expense when based on a shore base than when compelled to depend solely on floating tenders; aviation activities, with their absolute need of shore facilities for maintenance—all those and many smaller activities, spread abroad through considerable areas in a geographic sense, indicate the need of some coordinating agencies located strategically along our entire coast line, including the Great Lakes, which shall represent the Navy Department and its authority, within well-defined limits, for the purpose of insuring the operation of all of these activities in an effective and economical manner at all times, as well as providing the means of consolidating their defense in time of war and securing their largest measure of cooperation with the fleet and with the Army as the public safety may demand.

5. After the lessen of the World War, when the naval district organization was conclusively shown to be the only effective way of decentralizing the otherwise insuperable burden placed upon the Navy Department, it remains a matter of extreme regret that after 17 years tenure as an essential feature of naval organization and at a time when the shore activities of the Navy are necessarily far more numerous than at any time before in its peacetime history the naval district idea should be called into question. The reaction to the question takes the form, "One might as well talk of doing away with the fleet organization and endeavor to operate our vessels from the department as a series of separate squadrons and divisions as to do away with naval districts." It is firmly believed that the question would not be raised if a comprehensive grasp were had of what the district organization does in the administering of the general activities of the Navy. Just as we once had numerous little squadrons or even single ships scattered in many localities throughout the world and each one separately administered from the Navy Department, so we can carry on to-day. But just so surely as there is no cause to discuss the question of so carrying on with the same assurance we can state that no justifiable reasons exist for abandoning the naval district organization. As a matter of fact we can not abandon it. The organization, were it done away with in name, would force itself upon the Navy immediately in some other form. The administration of the 219,000 naval reservists on inactive duty and scattered throughout the country would alone necessitate some subdividing of the department's authority, which would inevitably take on a geographic form, because such a force of men can not be inspected, trained, accounted for, and generally administered from one central point. There must be subdivision, and the naval district organization affords a ready means of carrying on this administration. The same condition holds for radio communications. Just as the Western Union or the Postal Telegraph must district the country in the interests of economy, so must the Navy arrange for the administration of its communications ashore by districts. The naval districts again afford the convenient administrative agency. A great railroad system, with its repair plants, its storage yards, its passenger stations, its freight storehouses, its dispatching systems, is of necessity administered in divisions, and each division has its division headquarters, with administrative offices and expense of upkeep. But the saving in ultimate expense pays for this administrative cost. The division superintendent

doesn't interfere with the proper functions of the repair plant head or the various yardmasters or the doctor in charge of the dispensary or the freight-house superintendent, or any other head. But he may, with propriety, and he draws a large salary for doing so, see that an idle switch engine is detailed to help out congestion at the repair plant or a locomotive is rushed to bring emergency supplies to the dispensary, or a yardmaster is put in line for holding on temporarily to freight when the freight storehouse can not receive it, and a hundred other details of coordination might doubtless be mentioned as falling within his cognizance. It would be pretty hard to run such things from headquarters where the president and the directors sit.

6. Navy Department General Order No. 372 (revised), which is appended, states the following as the mission of the district commandant:

To direct the local naval defense of the district in accordance with the approved war plan, and provide for proper coordination with land defense.

To relieve the Navy Department of the administrative details of the district.

To promote the interests of the United States generally, within the limits of his authority.

To administer the Naval Reserve Force within the district in time of peace; to mobilize the Naval Reserve Force, transferring to the jurisdiction of the Bureau of Navigation all reservists destined for duty outside the naval district; to assist in the demobilization of the Naval Reserve Force in general service; all in accordance with such instructions as may be issued from time to time by the Bureau of Navigation.

Because perhaps the most words in this mission are used in connection with the Naval Reserve Force, it appears to be erroneously held by some that the district commandant's most important duty is the administration of this force. Although, as stated above, it is essential that there be decentralization of the department's authority over the reserve force and that the district organization readily lends itself to such decentralization, the administration of this force is only one of the administrative details of which the dstrict commandant relieves the Navy Department. If these details were carried on in the department, there would be concentrated in Washington the personnel now required for carrying them on outside of Washington. They must be carried on, and incalculable lost motion would result were an attempt made to carry them on entirely from the department itself.

7. Much criticism has been offered because it has been stated that the records show that district commandants before the World War employed 22 clerks and that now several hundred are employed. The records are misleading because of the changed character of the work carried on under the heading of district headquarters activities. The naval district organization lent itself so readily to the forced decentralization of the war-time period, wherein some of the larger district headqnarters, such as the third district in New York, carried on activities easily commensurate with the activities of the entire Navy Department before the war, that certain administrative details have never been absorbed back into the department, but have remained decentralized in the hands of the district commandants. While this is markedly the case with the administration of the 219,000 reservists who did not exist before the war, it remains equally true in a lesser degree of many other activities. Meanwhile the Navy itself, exclusive of the Reserve Force, is, roughly, three times as large in personnel and many times as large in material units than it was in July, 1916, which is a date commonly taken as a basic comparison.

8. A comparison of personnel charged against districts and their total pay before the war and at present leads to results from which no proper conclusions can be drawn. The entire character of the performance required of naval districts in their function of relieving the department of administrative details has changed, and the ramifications of this change are so varied as to defy outline, except in a tediously drawn table of statistics. For instance, the last return from the district commandants indicated a total enlisted personnel employed in district activities amounting to 1,593 men, but an analysis of this figure showed these men employed mainly on district craft, which include all floating craft within the geographical limits of the district, except those forming units of the organized fleets or on special duty. If there were no district these men would be doing exactly what they are at present doing, except a very few employed to man the barges, and so on, assigned to the district commandants in Boston, New York, and San Francisco, which number is negligible. Another instance of district organization coordination at work is exemplified

in the recent visit of the Naval Affairs Committee to the first naval district, where all that was done for the committee was arranged for by the district commandant. It would have doubtless been necessary, in the absence of such a coordinating agency, to detail an officer from each one of the activities inspected, and possibly one from the department, and all would have had to meet together or communicate in some way and laboriously and with detriment to the performance of their regular duties arrange an interlocking program, with always the chance of overlap or lost motion. Whereas the district commandant, with the organized machine built up and at his command under the district oroganization, was enabled to carry out the needed details without friction or needless interruption of customary routine. This incident, small in itself, is typical of an endless variety of incidents constantly occurring where the coordination of independently functioning and disassociated activities within a given geographical area is essential.

9. It has been stated above that no useful conclusion can be drawn from an attempt to compare the cost of clerical hire chargeable against the naval districts before the war and now. It is felt that this statement must be emphasized and most strongly adhered to. Were it possible to compare the total personnel employed in district clerical activities at the time of the armistice in November, 1918, and now, it might prove valuable in showing the extensive use to which the district organization was placed in the decentralization necessary in speeding up for the supreme effort we were prepared to make to insure ultimate victory. It would be valuable also in showing the extent to which we have gone in demobilizing the forces then brought together. This comparison is impossible, however, because the clerical personnel employed was almost entirely enlisted or enrolled personnel, and there are no means at hand for differentiating those employed in what were purely navy-yard activities or activities afloat and those employed ashore outside of navy yards.

10. An attempt was made last year to separate the clerical personnel which could be legitimately charged to district activities, but it was found that the figures obtained were so misleading as to be useless to the Navy Department, although they were of necessity submitted. As nearly as could be found there were 1,416 persons employed in district activities, including those employed in communications. An estimate was given for the current fiscal year by the district commandants which cut this number to 1,011. The department cut this number further to 833, of whom 482 were to be employed in communication activities alone, leaving a total of 351 employees for activities in the district which might be classified as an outgrowth of the decentralizing processes brought about by the lessons of the World War. The latest available report from the district shows these employees now number 253. If these employees are not engaged in work outside of Washington they will of necessity have to be removed to Washington to carry on their duties, with perhaps the exception of 15 to 20 per cent, who would be required whether the name "naval district" was abolished or not. It must be borne in mind that there are only three districts which have separate district commandants; the first district, with headquarters at Boston; the third district, with headquarters at New York; and the twelfth district, with headquarters at San Francisco. All other district commandants have additional duties which would engage the services of officers of their rank whether the name "naval districts" was done away with or not. Separate commandants exist in the first, third, and twelfth districts on account of the extent and variety of the naval activities in those particular districts.

11. Should the naval district organization be done away with, there would inevitably arise some form of administrative functioning which would correspond very closely to the existing district organization. In other words, a district organization has been forced upon the Navy by the administrative needs of the Navy Department.

The CHAIRMAN. On page 4 of the bill, line 13, the House struck out the words "and for such purposes as he may deem proper" under the head of "Contingent expenses, Navy, for emergencies and extraordinary expenses, exclusive of personal services in the Navy Department or any of its subordinate bureaus or offices at Washington, D. C., arising at home or abroad, but impossible to be anticipated or classified, to be expended on the approval and authority of the Secretary of the Navy, and for such purposes as he may deem proper, $50,000."

Admiral PEOPLES. The words in line 13 should be reinserted, because they are a part of the appropriation itself. The Secretary has written a letter to the Senate committee recommending that those words be reinserted. They have been there for a good many years—since this appropriation was originally established. It is one of those items that went out in the House on a point of order. This appropriation covers all emergencies which are impossible to anticipate or classify. The amount is small. It is expendable only upon the personal direction of the Secretary of the Navy himself, covering unusual expenses which are not covered by any other appropriation arising at home or abroad.

Senator HALE. Why is it not as well covered without the words "and for such purposes as he may deem proper"?

Admiral PEOPLES. It is restrictive.

Senator HALE. It already allows him to act for all emergencies and extraordinary expenses.

The CHAIRMAN. If that is the case, what harm will it do to put it in?

Senator HALE. I can not see the point.

The CHAIRMAN. I suppose maybe because it has been in before.

Admiral PEOPLES. It is for such purposes as the Secretary of the Navy may deem proper.

Senator HALE. For extraordinary expenses and emergencies.

Admiral PEOPLES. Yes, sir. It makes an expenditure proper which is in his discretion. It does not give the accounting officer of the Treasury any discretion as to whether or not any expenditure under this $50,000 item is proper or not.

Senator HALE. Of course, the approval and authority of the Secretary of the Navy would take care of that. They have never held up the accounts, have they?

Admiral PEOPLES. The Treasury officials in many, many cases substitute their own judgment as to what they think or deem is a proper charge against an appropriation.

Senator HALE. This is to clear it up with the Treasury Department?

Admiral PEOPLES. Yes, sir. While you are on "pay, miscellaneous." I have several points to bring out in connection with the appropriation itself, if you have finished with that one.

The CHAIRMAN. My idea was to get through with Admiral Coontz, and then to call you.

Admiral PEOPLES. He is interested, Mr. Chairman, in two of the points that I am going to bring out in connection with the appropriation for "pay, miscellaneous."

The CHAIRMAN. All right; go ahead.

Admiral PEOPLES. This appropriation as passed by the House amounts to $3,500,000. The estimate as originally submitted by the Secretary of the Navy for 1922 amounted to $6,000,000. It was later revised in the hearings before the House Appropriations Committee to $5,000,000. The expenditures for the fiscal year 1921, that is the present year, are at the rate of $4,891,000. The sum of $3,500,000 is allowed by the House. They allow with respect to mileage, which I will take up later with Admiral Washington, $600,000.

Mr. REED. $600,000 for mileage.

Admiral PEOPLES. $600,000 for mileage, for officers traveling on duty, and transfer between stations of dependents. The estimate for 1922 was that this item will amount to $1,250,000. The present rate of expenditure is $1,030,000 for mileage, plus $208,000 for transportation of the effects of dependents, making a total of $1,238,000. $600,000 is insufficient for this purpose.

The House put a restriction in line 12, page 3, that telephone rentals, and telegrams, and cablegrams should not exceed $250,000. The Secretary has recommended that that item be increased to $400,000.

Senator HALE. On what page is this?

Admiral PEOPLES. Page 3, line 12. That item should be increased to $400,000. The expenditures for 1921 are at the rate of $600,000, and that pays for the cost of cablegrams, telegrams, telephone rentals, which are a part of the communication service. The sum of $250,000 is wholly inadequate, as may be judged by the fact that the rate of expenditure this year is $600,000, which represents a reduction over last year of $400,000.

Senator HALE. Look at the item opposite page 3, "For the current fiscal year they are estimated to amount to over $900.000."

Mr. REED. That was in the original estimate of $6,000,000 which was submitted last October. That figure was subsequently revised in the $5,000,000 limit to $600,000.

Senator HALE. It was too large.

Admiral PEOPLES. It was too large.

Senator HALE. Then, this on the page opposite page 3 of the bill is of no value?

Admiral PEOPLES. No, sir: not with reference to that particular item. The chief of Naval Operations is vitally interested in that particular item because the total cost of cablegrams, telegrams, telephones, and telephone rentals is charged to that sum. The Secretary has recommended that it be increased from $250,000 to $400,000.

The CHAIRMAN. How do you account for the enormous increase in the expense of those communications now and what they were in 1915? The House committee reports that in 1915 the expense was $101,028?

Admiral COONTZ. I would state as to that that the telephone and telegraph rates since 1915 universally have increased over 30 per cent. During that period Navy activities regarding communications have been increased by the establishment of stations in Haiti, Santa Domingo, and the Virgin Islands, and a general increase in the size of the Navy in the last five years.

Admiral PEOPLES. There is another item in that in which Admiral Coontz is interested, and that is on page 3, line 25, the last line on the page. The sum of $750,000 is insufficient to provide a sufficient administrative force for the commandant's offices. This appropriation covers the clerical forces for the commandants of all navy yards and stations, the inspection boards, boards of labor, examining boards, and offices of the commandants of the naval districts. It has been recommended that that item be increased from $750,000 to $950,000. The amount allowed for 1921 is $1,000,000. The amount asked for 1922 is $950,000.

Admiral COONTZ. I would like to add to that statement that shortly after the war that amount was $11,000,000. It had grown to that

on account of the war activities. It was then cut down, last year, to $1,000,000, and we have from time to time made reductions at the rate of 20 per cent, 12 per cent, and then up, but making it in all 60 per cent, and we should be allowed that $950,000 at the present time, because otherwise these activities will be crippled.

I do not know but what this would be a good time, while we are on communications, to suggest that our actual cash revenue is—how much, Admiral Peoples—$1,800,000?

Admiral PEOPLES. About that; yes, sir.

Admiral COONTZ. From the commercial traffic that we handle.

Senator HALE. Through the radiostations?

Admiral COONTZ. Yes. That money goes into the Treasury and, of course, must be considered somewhat as an offset to these expenditures.

Senator HALE. What does this appropriation mean? It says "For clerical, inspection, and messenger service in navy yards." Does it mean all clerical work?

Admiral PEOPLES. No, sir. That is clerical work in the offices of the commandants of navy yards, the boards of labor employment, the examining boards at navy yards, and the clerical forces in the offices of the commandants of naval districts.

Senator HALE. Do the expenses of the boards of inspection and examining boards come out of this appropriation?

Admiral PEOPLES. Yes, sir.

Senator HALE. It is all part of this same appropriation?

Admiral PEOPLES. Yes, sir.

Senator BALL. It is all covered by this $750,000?

Admiral PEOPLES. Yes, sir.

Lieut. Commander HILL. We are not allowed to charge any clerical force to any of those various items under "Pay, miscellaneous," except the $1,000,000 which specifies for clerical hire. That has been the decision, and what we are allowed by law to do.

Admiral COONTZ. I think that is all under "Pay, miscellaneous."

Admiral PEOPLES. That will make the total $4,540,000, page 4, line 6.

The CHAIRMAN. Have you anything special to say about the aviation conditions in the bill, Admiral?

Admiral COONTZ. Yes, sir. The House bill provides for $6,913,000. We had also a legislative bill which provided for about eight or nine million more. That failed. Therefore what remained in this bill is $6,913,000. The Secretary has a letter which will be here this morning that will tell exactly what the list is and how we would like to have it handled. It goes into the various phases of this, and if you will, pass that, Senator, for the present.

The CHAIRMAN. All right; we will pass over aviation then.

There was a hearing before the committees, I think, of both Houses on the question of the State marine schools, on page 6. The presidents of the schools of Washington, Pennsylvania, Massachusetts, and New York appeared here and gave a statement of the increase of expense that the States had been put to in maintaining their half or supposed half of the cost of the schools, and asked for an increase of this appropriation from $25,000 in each case to $50,000. We would like to get your views about that.

Admiral COONTZ. For many years three States, sometimes the same and sometimes another, particularly New York, Pennsylvania, and Massachusetts, have carried on these nautical school ships for training schools; that is, the Federal Government would furnish $25,000 and the States the rest. They have done remarkably good work in the training of officers for the merchant marine, and during the war I suppose almost without exception the graduates came into the Navy and did very good service. They have run along with $25,000 while the price of everything was going up, all these years, and personally I would strongly favor their getting the amount they desire, provided the States put up the same amount of money, because I do not know of any other way in which the money could be better spent. I was executive of the Massachusetts school two years myself, and we would take these boys on long cruises, and in the list of people who were in the Navy during the war you will find their names.

The CHAIRMAN. Have you been able to observe what benefit was effected by the training they received in these schools, in actual service? Has it shown good results?

Admiral COONTZ. It has shown most excellent results. They get the Navy training, and what is especially good regarding their training is that they are made proficient in navigation. The great fault I have always found among the merchant marine is that they are not as skillful navigators as I would always like to see them. But this is a training in all lines, from engineering and electricity up, and long courses which makes them especially good navigators. They have either active or retired naval officers to head these schools, and then they take the rest of the officers from civil life. They are actually in almost straight-away naval training. I believe it is a most worthy cause.

STATEMENT OF REAR ADMIRAL THOMAS WASHINGTON, CHIEF BUREAU OF NAVIGATION.

The CHAIRMAN. Under the head of "Bureau of Navigation," I notice a change made by the House in the House Committee bill, lines 21 and 22, on page 6, where they strike out the words under "transportation and recruiting," "and applicants for enlistments;" also, in line 22, "or cash in lieu thereof." Is that of any importance, Admiral Washington?

Admiral WASHINGTON. Yes, sir; that is of very great importance. As it is now worded it would practically limit us to recruiting from our main center stations, which would necessarily be in the large cities. The applicants for enlistment referred to, generally speaking, are boys and young men who come in from the country, and the smaller towns, either voluntarily or we send out traveling recruiting parties into the small towns and they then come in for enlistment, or take the preliminary steps toward enlistment. We pay their expenses. The boys or the men ought not to be expected to pay their expenses from their homes or towns or farms, and the cutting out of this provision will prevent us being able to refund these applicants for the expense they have incurred in reaching the recruiting station. We have had this authority in the bill for years.

Admiral COONTZ. It went out on a point of order.

Admiral WASHINGTON. It is very necessary to have it back.

The CHAIRMAN. Both of those clauses, you think, are important?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. "And applicants for enlistment," and also the words "or cash in lieu thereof"?

Admiral WASHINGTON. Yes, sir. The cash in lieu thereof means a small amount of money which is given a man when he is transferred from one place to another to pay his street car fare, his baggage transfer, and his ferry expenses. Of course, the supply officer does not have tickets for these purposes, and we give him a small amount of money to cover them. That is the purpose of it.

The CHAIRMAN. We would be glad to hear any suggestion that you have on your mind, Admiral, in regard to this legislation affecting the Bureau of Navigation as contained in the bill.

Admiral WASHINGTON. Taking up this total of $3,500,000 as authorized by the House, the estimate submitted by the bureau and approved by the Secretary for that item was originally $9,000,000. We submitted $9,000,000 and the department approved $6,000,000. The House awarded us $3,500,000. The Secretary has written a letter which will reach the committee to-day or to-morrow in which he has recommended that the amount be increased from $3,500,000 to $4,500,000. That amount, if not increased, will render absolutely necessary the running of a deficit if only because of two fixed charges which we have by law—that is, the paying of a man 5 cents a mile when discharged from the place of discharge to his place of enlistment—and then if a man reenlists we also have to pay his expenses back from the recruiting station, or wherever he reports in for enlistment.

Those two items, based on the known discharges of the men, 43,123, who will go out by expiration of enlistment, plus 6.6 per cent which we allow for those who go out by medical discharge, undesirability, inaptitude, and reasons of that kind, total $1,869,474, on a basis of 100,000 men.

The transportation of enlisted men and apprentice seamen, and applicants for enlistment at home and abroad, with subsistence and transfers en route, to replenish and keep the Navy up to 100,000 will amount to $4,483,858.30. Those are practically fixed charges. We have got to meet them, because the law required them. It is not a question of discretion. The men are entitled to them under the law.

Senator HALE. If the Navy is cut down to 100,000 there will be more discharges this coming year than if you left it 120,000?

Admiral WASHINGTON. Yes, sir; and I base these figures on that.

Senator HALE. Therefore, if you do not cut down below 120,000, or if we cut down to 110,000 instead of to 100,000, you won't need so much money for this purpose, will you?

Admiral WASHINGTON. Yes, sir; because these 43,123 men, who go out by expiration of enlistment would reduce the Navy from 100,000, if we started at that number on the 1st of July, to 57,000. They go out absolutely. Their enlistments expire.

Senator HALE. Then it makes no difference whether we cut it down or not?

Admiral WASHINGTON. No; those are fixed charges. For the transportation of men allowed by law, 5 cents a mile, we figure that would amount to $7,495,399.70. That is, cutting all the items under

transportation and recruiting down to bedrock. We have cut out, for instance, advertising and matters of that kind, and allowed only $2,000.

Senator HALE. You estimate it will be over $7,000,000 and the estimate here is $6,000,000?

Admiral WASHINGTON. We thought we could get along by cutting these various items to $6,000,000, with the understanding that we would have to run a deficit. We have already for the present year a deficit of $2,697,000 which the Secretary has asked for in the deficiency bill. That is in the present year. He has recently asked Congress to grant that amount additional to what Congress had allowed for the current year.

Admiral COONTZ. This is one of the items on which we can run a deficit.

Admiral WASHINGTON. Yes. This appropriation, if made to remain at $3,500,000, will be too small, and we have repeatedly informed the House Appropriations Committee that we must run a deficit unless it was increased.

Senator HALE. What is the deficit this year?

Admiral WASHINGTON. The Secretary has asked for $2,397,106. That request is before Congress now.

Senator HALE. And you need how much of this appropriation for this year so as not to have a deficit?

Admiral WASHINGTON. We need $7,495,399.70. That will cover the contemplated expenses, and is a little more than double what is appropriated for in this bill.

Senator HALE. Was this explained to the House committee?

Admiral WASHINGTON. Yes, sir. The House committee had, in taking this matter up, assumed we would really have to do but very little recruiting, and that 60 per cent of the men entitled to would reenlist; that is, 60 per cent of the 43,123 discharged by expiration of enlistment. That was an estimate we made, but have found it to be incorrect.

Senator HALE. In which case they are not paid?

Admiral WASHINGTON. No, sir; we would not have to recruit them if they reenlisted. In that case we would not have to go out in the cities and towns and the country to get new recruits, because 60 per cent of the 43,000 whose enlistments expire would give us 25,000 who would come back of their own volition, and then we would not have to recruit but a small number to keep the Navy up to 100,000. This supposition, however, appears to be wrong, and we will have to do a great deal of recruiting of new men.

Senator HALE. How about that expectation?

Admiral WASHINGTON. We have found that it does not work at all, in fact, is entirely wrong.

Senator HALE. Why not?

Admiral WASHINGTON. Last month, in January, our reenlistments were only 150, and was a great surprise and disappointment.

Senator HALE. Out of how many?

Admiral WASHINGTON. We expected about 1,500 to 1,600 or more. We have no figures really to go on in reenlistments. There is nothing we can base on with any degree of satisfaction because conditions have been so disturbed and unsettled during the war and also during

the past year, due to demobilization and the economic state of the country.

Senator HALE. Do you find the tendency is that as wages go down and it is harder to get work, that the men come back to reenlist?

Admiral WASHINGTON. That is what we hoped would be the case and is usually so, but during January and this past half of February we find it has not worked out at all according to our expectations. Instead of getting 1,500 or 1,600 reenlistments we got only 150, so I think recruiting will be necessary to a considerable extent, to keep up the enlisted force.

Senator BALL. How do you account for that?

Admiral WASHINGTON. I do not account for it; I don't know why it is. It was a great surprise.

Senator BALL. With business conditions as at present?

Admiral WASHINGTON. It looks like with business unsettled as it is men would come back to the service but they have not done so. What this is due to I can not fathom. Our expectations were that we would get quite a large number of reenlistments in January.

Senator HALE. Is there not some provision that they can be discharged and then reenlist any time within a month?

Admiral WASHINGTON. Within four months.

Senator HALE. By doing that they can get their pay for traveling expenses from their home?

Admiral WASHINGTON. Yes, sir.

Senator HALE. That is what they do probably.

Admiral WASHINGTON. We figured on a percentage of perhaps 60 per cent reenlisting on the experience of seven months only, from June to December 31 last. It was thoroughly explained to the subcommittee of the House Appropriations Committee that that estimate was based on conditions in the country when everything was thoroughly upset, and we did not know whether it was going to hold good or not, and that instead of getting 60 per cent of reenlistments we might not get 10 per cent, and this latter supposition seems nearer the actual facts. But the moment we stopped recruiting it seemed that the reenlistments rapidly fell off, and I therefore attribute the lack of reenlistments more to the stoppage of recruiting efforts than I do to any other cause—not to the financial condition of the country at all, but simply the suspension of recruiting offices which would stir the fellows up and bring them back into the service. We stopped recruiting absolutely on the 31st of December. As it now appears, on or before the 1st of July next we have got to reopen all our recruiting stations and recruit to fill the places of those 20,000 men whose terms of enlistment will expire during July, August, and September next.

Senator PHELAN. How does the failure to recruit affect the men who are already in the service? What is your theory?

Admiral WASHINGTON. The House has intimated they are going to reduce us to 100,000 men, so we have already begun to discharge as rapidly as we can all the undesirables. The effect on others probably will cause some of them to ask for their discharge.

The CHAIRMAN. We will have to suspend for a few minutes, as there is a vote going on in the Senate.

(After an informal recess the committee reassembled.)

The CHAIRMAN. Admiral Washington, you may continue your statement.

Admiral WASHINGTON. The appropriation for the transportation of these two classes of men—that is, those discharged by expiration of enlistment, medical discharge, reenlistments, and applicants, etc.—amount to a total of about $6,000,000. We have cut the appropriation for recruiting and for getting in men to replace those whose terms expire but who do not voluntarily reenlist as low as we thought it should be, and the House committee apparently took the stand that reenlistments would be very great; that recruiting would not be necessary, or, if necessary, it would be at such a very small amount, that they practically cut the recruiting appropriation out.

Admiral COONTZ. I think you ought to tell Senator Poindexter that there are 43,000 men who go out by discharge alone.

Admiral WASHINGTON. There are 43,123 who go out of the Navy by discharge alone during the fiscal year 1921–22.

The CHAIRMAN. How many have you in the Navy now?

Admiral WASHINGTON. At the 15th of this month we had about 130,600, and those we are gradually reducing, or rapidly reducing in fact, so as to average for the year not exceeding 120,000 for which number Congress appropriated pay in the last bill; that is, the current year.

The CHAIRMAN. What is the total authorized strength of the Navy now?

Admiral WASHINGTON. At the present time it is 137,485, plus the Hospital Corps, men in prisons, men assigned to the Naval Reserves, and a few other items, making a grand total of about 145,000. That is the total enlisted force, but Congress last year appropriated pay for only 120,000.

The CHAIRMAN. What did you estimate would be required for recruiting?

Admiral WASHINGTON. Our estimate was $7,495,399.70.

The CHAIRMAN. For recruiting alone?

Admiral WASHINGTON. No, sir; that is for recruiting and transportation. Transportation is the big item.

The CHAIRMAN. What did you estimate would be required for recruiting?

Admiral WASHINGTON. For recruiting we asked $378,000, and I think the House committee's item allowed was about $78,000. That is my recollection of it. For rent of rendezvous and expenses of maintaining the same, advertising for and obtaining men and apprentice seamen, which meant the maintenance of about 350 recruiting stations, we ask $262,574.

The CHAIRMAN. What did the House allow?

Admiral WASHINGTON. The estimate was about $640,000 and they cut it to about $150,000. They practically abolished all possibility of successful recruiting.

The CHAIRMAN. Does the estimate that you mentioned include the cost of advertising?

Admiral WASHINGTON. We allowed only $2,000 for advertising, that is practically did away with it.

The CHAIRMAN. How much did you spend last year in advertising?

Admiral WASHINGTON. $300,000 for advertising. This year we cut it to $2,000.

The CHAIRMAN. Give us an idea of how reliable your data as to the money you need for recruiting is? Is it just guesswork, or have you got pretty substantial data?

Admiral WASHINGTON. We have very substantial data for it. Last year it was $1,200,000, and we set aside $200,000 for advertising. Now, this year we have asked for $2,000 only for advertising for recruits. But we must maintain the recruiting stations, and for some of them we have to pay rent. Wherever we can get a room in the Post Office Building or a Federal building of any kind throughout the country, we try to get it.

The CHAIRMAN. How many stations have you?

Admiral WASHINGTON. About 350 we did have. At present we have only about 43, and these we hope to retain. We have cut them down to almost nothing.

The CHAIRMAN. When was it you had 350?

Admiral WASHINGTON. The 1st of January.

The CHAIRMAN. But you have cut them down to 43?

Admiral WASHINGTON. Yes, sir; about 43—that is, we have left only our principal stations.

The CHAIRMAN. How many men can you maintain under the appropriation carried in the bill as it passed the House?

Admiral WASHINGTON. We can not maintain really any but the most necessary ones. We will try and maintain the main stations in the principal cities. But our recruits come from the country and smaller towns as well as from the larger cities, and we should have substations in the smaller towns also. The larger cities we can reach better locally, from receiving ships and places like that, in New York, Boston, Baltimore, and San Francisco—there we can reach them locally. But we can not get to the small towns and country unless we have recruiting appropriations which will enable our people to go out and interview the people in the neighborhood of where they live.

The CHAIRMAN. How much does it cost to maintain the recruiting stations you have at present, the 43?

Admiral WASHINGTON. We will maintain them on what the House allowed, but it will not meet the needs of the recruiting we must undertake to keep the Navy filled.

The CHAIRMAN. It will maintain 43 stations on what the House allowed?

Admiral WASHINGTON. Yes.

The CHAIRMAN. But you are giving them up now?

Admiral WASHINGTON. We intend to give up about 300. We had about 350.

Senator HALE. You propose to hold on to the 43, and you have given up the rest?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. I understood you had given them all up?

Admiral WASHINGTON. We have called in and given up the men stationed in about 300.

The CHAIRMAN. What I am trying to find out is whether you can continue to maintain your present recruiting establishment under the amount allowed by the House?

Admiral WASHINGTON. No, sir; not the recruiting establishment we had on the 1st day of January, and that is what we will really need after the 1st of July.

Senator HALE. That included the 300 extra stations?

Admiral WASHINGTON. Yes, sir; it did. And we have got back and reestablished them, because we have to recruit and can not depend on 60 per cent of reenlistments. It shows that we have got to get our recruiting force started to get men to come back and reenlist as well as to bring in new men. The recruiting force was evidently a stronger factor in bringing back reenlistments than was the action of the men themselves voluntarily coming back.

Senator HALE. You do not mean to say that you have only recruited 150?

Admiral WASHINGTON. We reenlisted that many in January. We have stopped recruiting absolutely. I think, however, we did take in two recruits during the month.

The CHAIRMAN. You want this item more than doubled. You say that you want, instead of $3,500,000, $7,000,000?

Admiral WASHINGTON. Yes, sir; we would like to have that or as near as we can get it.

The CHAIRMAN. What portion of that do you appropriate to transportation?

Admiral WASHINGTON. About 90 per cent of it goes for the fixed charges of transportation.

The CHAIRMAN. You can estimate that pretty closely?

Admiral WASHINGTON. We know absolutely what it is going to cost for the 43,123 men whose enlistments expire, and if we take our usual assumption of such a percentage of discharges for inaptitude, undesirability, medical discharge, and matters of that kind we get it fairly accurately. Our figures, so far as transportation is concerned, are very close to accurate.

The CHAIRMAN. You say the Secretary in his letter recommends $4,500,000?

Admiral WASHINGTON. Yes, sir; an increase of $1,000,000, and I said to him this morning we must necessarily even then make a deficit for the year, as it was not enough.

Senator HALE. This must involve a deficit?

Admiral WASHINGTON. Yes, sir; there is no way out of it.

The CHAIRMAN. Even if you have no recruiting?

Admiral WASHINGTON. Yes, sir; because we have to pay these time-expired and other men their transportation home.

The CHAIRMAN. And there would be a deficit on a basis of an appropriation of $4,500,000 even if you abandoned recruiting?

Admiral WASHINGTON. If we totally abandoned recruiting we would have the Navy reduced, Senator, to less than 50,000 men by reason of honorable discharges, and unless we recruit we can not replace these men.

Senator HALE. You said 90 per cent had not anything to do with recruiting?

Admiral WASHINGTON. The charges for transportation are about that. We have to give men under the law 5 cents a mile to their homes, and it amounts to about that wherever they are transported.

Senator HALE. So if you do not recruit at all your expenditures for traveling will amount to $6,000,000?

Admiral WASHINGTON. That is a little in error; we would not have quite that much perhaps.

Senator HALE. But you have just said 90 per cent is for that?

Admiral WASHINGTON. I mean of those fellows discharged and going home, there would be about 60,000 of them, and those men being paid at the rate of about $50. There is $3,000,000 right there; then to recruit new men, send them to a training station, and then later to a ship makes up the rest.

Senator HALE. Then, what is your estimate for recruiting in its total?

Admiral WASHINGTON. It is $378,000 for the expense of recruiting and $264,574 for rent of rendezvous and expenses of maintaining the same, $2,000 for advertising, and $2,000 for actual necessary expenses of officers in connection with recruiting parties.

Senator HALE. So the whole recruiting appropriation, if you got it, will be under $600,000?

Admiral WASHINGTON. Under that arrangement, just about.

The CHAIRMAN. What is the minimum amount required for transportation without considering recruiting at all?

Admiral WASHINGTON. Roughly, $6,300,000. Of course, a great many of these men are now on the Pacific coast, and if they are discharged there that means nearly $300 transportation to him to go home. He gets that under the law whether he goes home or not. If he goes home and reenlists there and wants to come back to a ship on the west coast, our general practice has been to send him back.

The CHAIRMAN. This item on page 7, lines 15 to 23, is entirely $50,000 for reporting the services of persons in the Navy during the war?

Admiral WASHINGTON. Yes, sir; that was in the bill last year. Last year Congress allowed us $200,000, as I recollect it, to be used in copying the records that the adjutant generals of the several States wished to cover the records of service of all officers and enlisted men from their respective States who served in the war. We have got about three-quarters through with this work and it is necessary to have an additional appropriation to carry it on in order to complete it. If we do not complete it, it will not be worth anything to any of the States.

The CHAIRMAN. And we simply lose the value of what has been done?

Admiral WASHINGTON. Yes, sir. Last year the bill as passed took $100,000 of our bureau appropriation for use on this work, in addition to the $200,000 appropriated especially.

The CHAIRMAN. You have spent altogether a total of $200,000 on it so far?

Admiral WASHINGTON. No, sir; we will have spent by June 30, $300,000, and we ask this year that the amount be increased from $50,000 to $200,000, because if we use the regular bureau clerks for this work in addition to the others employed under this special appropriation, as we did this year, we find ourselves shortened greatly in our clerical force by the action of the Appropriations Committee which has just passed the legislative bill, and in it has reduced us by 130 clerks, or by the sum of $152,000. I therefore ask that that wording be put back in this bill and the sum be made $200,000, so

that we can use the clerks in the same manner as we did this year, and complete the work.

Senator HALE. For this purpose?

Admiral WASHINGTON. Yes. Last year Congress authorized the interchangeability of these two appropriations—that is, to the extent of $100,000 of the regular bureau appropriation—to help out in this copying work, and I now ask that the same authorization be carried in the present bill and the amount be increased to $200,000.

The CHAIRMAN. How much money will be required to complete this work?

Admiral WASHINGTON. Not less than the amount stated in the bill.

Senator HALE. Including the hiring of clerks?

Admiral WASHINGTON. Yes, sir; and I would like to have that restriction of date removed.

The CHAIRMAN. Not including the hiring of clerks?

Admiral WASHINGTON. Yes, sir. I would like to have that restriction on or before October 31, 1921, removed, because, while it is practicable to do it, yet there will be a great many inquiries later on coming from every State for more information, and the work therefore will be more or less continuous for some time to come.

Senator BALL. You want this provision from lines 15 to 23?

Admiral WASHINGTON. Yes, sir; the whole thing reinserted, with the amount at $200,000 in place of $50,000, and after "1921," in line 18, I would like to add "or as soon after as possible." That will not limit us to that date, because we must have correspondence on this subject later on with the adjutant generals of the several States.

Senator HALE. Fifty thousand dollars would not do any good, would it?

Admiral WASHINGTON. It might do this work if we stopped the bureau part of our work and turned the clerks entirely on this particular job, but the work of keeping and copying these records is so interwoven with the regular bureau work that it is impossible to thoroughly separate it. There are some clerks working on records at one time and others at another time, and the records can not be used by the different clerks at the same time.

Last year Congress authorized $100,000 from the regular bureau appropriation to be used in connection with this appropriation which was made for this particular job, and I ask that that authority be again given and that the amount of $200,000 be put in the bill, and in practically the same language as last year, so that we can efficiently use it during the coming year in the same manner as we did this year, and complete the work.

The CHAIRMAN. What is the language?

Admiral WASHINGTON. I have it here:

The Bureau of Navigation, Navy Department, is hereby directed to furnish to the proper officers in the several States, Territories, insular possessions, and the District of Columbia, United States, on or before June 30, 1921, statements of the services of all persons from those several places who served in the Navy during the war with Germany, and for that purpose a sum not to exceed $200,000 is hereby appropriated for obtaining the necessary material and the employment of the necessary clerical force, and the further sum of $100,000—

And this is what I particularly refer to—

shall be allotted of the appropriation of $404,140 for temporary employes, Bureau of Navigation, contained in the legislative, executive, and judicial appropriation act for the fiscal year 1921.

The CHAIRMAN. It was understood that when that appropriation was made that that would complete the work.

Admiral WASHINGTON. No, sir.

The CHAIRMAN. It says by June 30.

Admiral WASHINGTON. That is what they put in, but it was a clear understanding of the committee that this estimate at this time was $750,000, as I recall it, and that the first appropriation of $200,000 would not complete it.

The CHAIRMAN. It was?

Admiral WASHINGTON. Yes, sir; the original estimate was $750,000, and the smaller sum was put in, we might say, as an afterthought.

Senator HALE. I suppose it went out on a point of order. Mr. Chairman, don't you think it would be a good idea for the admiral to draw up what he thinks would be a clause that would cover this, and leave it with the clerk?

Admiral WASHINGTON. I have it here, sir. This was not the action of the department in asking for this money for copying these records, but it comes from adjutant generals of the States throughout the Union. The Army and Marine Corps are working on the same matter.

(The amendment suggested is here printed in full, as follows:)

The Bureau of Navigation, Navy Department, is hereby directed to furnish to the proper officers in the several States, Territories, insular possession, and the District of Columbia, on or before October 31, 1921, or as soon thereafter as possible, statements of the services of all persons from those several places who served in the Navy during the war with Germany, and for that purpose a sum not to exceed $200,000 is hereby appropriated for obtaining the necessary material and the employment of the necessary clerical force.

The CHAIRMAN. What else of importance under this head have you to speak about?

Admiral WASHINGTON. Gunnery exercises.

The CHAIRMAN. Before you get to that, under the head of "contingent," on page 8, the House struck out two lines there, lines 8 and 9. Is that of any importance?

Admiral WASHINGTON. No, sir; we do not care about that. We have not used that heretofore, and we probably would have no occasion to use it again. It was put in during the continuation of the war.

Mr. MOSES. The Secretary has asked for it.

Admiral WASHINGTON. In line 18, page 8, "Gunnery and engineering exercises," on a point of order that section was stricken out. We ask to have it reinserted. It is legislation that has been there for a number of years, and it is the means by which we have of maintaining our target practice and gunnery work.

The CHAIRMAN. I think myself that is one of the most important things in the bill.

Admiral WASHINGTON. Yes, sir

The CHAIRMAN. "Prizes, trophies, and badges for excellence in gunnery."

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. What about these lines that were added to the committee bill in the House, page 9, lines 2 to 5, inclusive?

Admiral WASHINGTON. That was in the first bill, I think.

Mr. MOSES. That is included in the previous clause.

The CHAIRMAN. Is that not carried anywhere else in the bill?

Mr. MOSES. They struck it out on a point of order and carried those words to care for what they wanted to care for in that clause. It is already in the previous clause.

Admiral WASHINGTON. It would be very much clearer to have it put back as it was last year and heretofore.

The CHAIRMAN. That is the same as the part that is stricken out.

Mr. MOSES. After they struck it out an amendment was offered which was adopted.

The CHAIRMAN. What is the next item?

Admiral WASHINGTON. They struck out the outfits on first enlistments for the men. That I think is to be taken up by the chief of the Bureau of of Supplies and Accounts. Will you take that up?

Admiral PEOPLES. Yes.

Senator HALE. That is supplies and accounts?

Admiral PEOPLES. Yes, sir. In the ordinary routine it would come with this section.

Admiral WASHINGTON. It is the means by which we outfit the recruits on their original enlistment. They are allowed a $100 outfit of clothing upon first enlisting, and this provides for it.

The CHAIRMAN. We will come back to that again.

Admiral WASHINGTON. The amount allowed in the 23d line, on page 9—$750,000—will not meet our needs. We have about 31 undelivered destroyers and a number of other vessels for which no provision is made for gyrocompasses or navigation outfit. We estimated originally for this section, $1,236,719; the Secretary approved $1,000,000, and the House cut it to $750,000.

Senator BALL. What are you asking now?

Admiral WASHINGTON. $950,000. We have 31 destroyers coming on, and yet to be outfitted besides other vessels.

The CHAIRMAN. You asked for $1,000,000?

Admiral WASHINGTON. $950,000.

The CHAIRMAN. How does it happen there was an estimate for a million and a half?

Admiral WASHINGTON. No, sir: $1,200,000 and odd was our original estimate—$1,236,000—and the department approved it for $1,000,000, and the House cut it to $750,000.

Senator HALE. Can't you get along on that?

Admiral WASHINGTON. We can get along, but the ships may not be properly outfitted. These 31 destroyers, and the scout cruisers—I am not sure about them—but several of the other vessels will not have their complete navigation outfits, and their gyrocompasses, particularly, we should have.

Senator BALL. But you can equip with $950,000?

Admiral WASHINGTON. Yes, sir.

Senator HALE. Can you not cut down on things like libraries and other items here, and use it for only the necessary things?

Admiral WASHINGTON. We can, to a limited extent, sir, but we hate to cut down on necessary things like that, and I doubt if we could save enough on it to outfit these destroyers. A battleship requires about $30,000 for gyrocompasses and a destroyer about $3,000, and we have 30 destroyers.

Senator SWANSON. How long does it take to equip with these gyrocompasses?

Admiral WASHINGTON. About a year and a half at the present time, because they have had difficulties of construction, and strikes, etc., at the works, I am informed.

Senator SWANSON. Under stress how long would it take?

Admiral WASHINGTON. It ought not to take more than three months.

The CHAIRMAN. Does this include repair and readjustment?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. Keeping in condition?

Admiral WASHINGTON. Yes, sir. It also includes pilotage, towage, canal duties, wharfage, etc.

The CHAIRMAN. What is the next item?

Senator BALL. Naval training stations, is that satisfactory?

Admiral WASHINGTON. The naval training station, California, was given $125,000, with the distinct statement with the Subcommittee on Appropriations that no repairs of any kind whatsoever were to be put on the buildings; the buildings were to be allowed to go downhill all the time and until they were vacated by transfer to San Diego.

Senator BALL. How soon do they expect to transfer the station?

Admiral WASHINGTON. I had a letter yesterday from Admiral Welles, the commandant at San Diego, and he told me he doubted very much if they would get in in 1922.

Senator BALL. If it was going to be transferred shortly it would probably be worth while not to spend a great amount on improvements.

Admiral WASHINGTON. No, sir. We can get along with $125,000 if we do nothing to the buildings, but the sanitary conditions will necessarily go down from day to day. They are temporary structures—wooden structures.

Senator BALL. The place itself is a very sanitary place.

Admiral WASHINGTON. Yes, sir; but during the rainy season if the men do not have a roof over their heads, it will not be very sanitary for them.

Senator BALL. There was a special understanding that if the roofs leaked they would be allowed to leak.

Admiral WASHINGTON. Yes, sir. That is, the House Committee asked whether we could run the station, and not put any repairs on it, and we said we could do it on the amount allowed.

The CHAIRMAN. What amount did you ask for?

Admiral WASHINGTON. The Secretary is sending a letter now asking for $50,000 more, making $175,000.

Senator HALE. If we allowed you $25,000 more could you not take care of any kind of leaks?

Admiral WASHINGTON. I think so; yes, sir; we could get along with if because we will only be there during the time we are kept away from San Diego.

Senator HALE. How long will that be?

Admiral WASHINGTON. Admiral Welles told me this past week he doubted if we would get in during the present year; if we get in by the fall of 1922 we will probably be doing well.

Senator GERRY. I see the committee has reduced the appropriation for the naval training station at Newport to $185,000; that the estimate was $500,000, and that last year $275,000 was appropriated. Can you get on with that, with $185,000?

Admiral WASHINGTON. Not unless we treat it pretty much in the same way we expect to treat the San Francisco station.

Senator BALL. Are you going to continue training there in the new grounds or on the old training station, at the island?

Admiral WASHINGTON. At Newport?

Senator BALL. Yes.

Admiral WASHINGTON. I had a letter last week from Capt. Dismukes asking authority to move back to Coasters Harbor Island.

Senator BALL. If they move back to the old island they will have to have repairs. The buildings are in miserable condition.

Admiral WASHINGTON. Yes, sir.

Senator BALL. If they can maintain it on the expenditure of $6,000,000 that they made there during the war for their new training station, there will be no repairs needed?

Admiral WASHINGTON. Yes, sir.

Senator BALL. They expended $6,000,000 for a new training station.

Senator HALE. But they are now contemplating giving that up.

Senator BALL. It is so inaccessible, I don't see how they can use it—they can't reach it.

Admiral WASHINGTON. The transportation problem is very difficult.

The CHAIRMAN. How much has been spent of the $6,000,000?

Admiral WASHINGTON. I don't remember the sum, but probably that much. It accommodates about 12,000.

Senator BALL. But you have to have repairs?

Senator GERRY. What reason did Capt. Dismukes give for moving back?

Admiral WASHINGTON. One reason was that the old station can be run more economically. He gets his light and power now from the torpedo station, and that has reduced the expense very materially. The permanent buildings over on Coasters Harbor Island are much better, on the whole, if they are in good condition, than the ones over on Codington Point. The convenience of the old station, due to the inaccessibility of Codington Point, is very much greater.

Senator GERRY. Of course, the buildings at Codington Point were new buildings when they moved into them?

Admiral WASHINGTON. Yes.

Senator GERRY. Now, I understand you to say he wants to go back?

Admiral WASHINGTON. Yes, sir; because he says he can more economically handle the whole station.

Senator GERRY. Won't he have to repair those buildings?

Admiral WASHINGTON. The wooden buildings on Codington Point have tar-paper roofs, and it is only a question of a year or so——

Senator GERRY. He wants to move back again to the old permanent buildings?

Admiral WASHINGTON. Yes, sir.

Senator BALL. If they move back, what is your idea, what does he expect to do with these new buildings? Let them just deteriorate with age?

Admiral WASHINGTON. Yes, sir; allow them to go as a war loss.

Senator BALL. They had better scrap the whole business.

Admiral WASHINGTON. Yes, sir. That is what we are doing at the other station, at the Great Lakes, at Mare Island, and I suppose we will do it at East Camp—just let them go as a war loss.

Senator GERRY. Will he be able to accommodate those men in the permanent buildings?

Admiral WASHINGTON. He has written me he would; yes, sir.

Senator GERRY. There is not so much repair needed at the permanent buildings?

Admiral WASHINGTON. We put in quite a good deal of repairing between the 1st of July and the end of the year. It is his own idea to move back, and the reason he gave was such I thought it well enough to authorize it, but he does not care to go until warm weather sets in. He gets all light, heat, and power from the torpedo station, and that is a big factor now. Before it was a very expensive affair, and he ran the plant over on the old station, if you recall, with fuel oil. Now he gets all of it from the torpedo station.

Senator BALL. They have a heating plant and lighting plant over on the island now?

Admiral WASHINGTON. Over on Codington Point.

Senator BALL. The new training station?

Admiral WASHINGTON. Yes, sir; he has several of them. I think something like at least three separate ones. They have to keep two of these in operation. If he gets back to the old station, he will get his power and light from the torpedo station, and save considerably thereby. He can put in one more camp in addition to the frame buildings on Coasters Harbor Island, running a coal-burning boiler which he already has on the island, he says, and which he will establish himself, and he thinks on the whole the result will be more economical on Coasters Harbor Island after he moves back than it would be to maintain the establishment on Codington Point.

The CHAIRMAN. There ought to be a decision as to which is to be used. He ought not to waiver between these two places and divide this appropriation. This speaks of new buildings and wharves, for maintenance of buildings and wharves, dredging channel, extending sea wall. Is that at the old place or the new place?

Admiral WASHINGTON. That is an appropriation that has been in for years, and sometimes we have occasion to take advantage of it on either station.

The CHAIRMAN. You use it sometimes on the old place and sometimes on the new?

Admiral WASHINGTON. There won't be anything to do at the new place. It will be practically all put in on the old.

The CHAIRMAN. Coasters Harbor Island?

Admiral WASHINGTON. Yes, sir; as soon as we get back.

The CHAIRMAN. You could do either under the appropriation?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. And both of these are included under the head of training station, are they not?

Admiral WASHINGTON. Yes, sir; but we would have very little occasion to spend anything on Codington Point after we once move back.

Senator GERRY. Would this appropriation, then, be sufficient if he moves back to look after those repairs?

Admiral WASHINGTON. Yes, sir.

Senator GERRY. It will?

Admiral WASHINGTON. Yes, sir; entirely.

Senator GERRY. This appropriation, then, will cover the whole thing?

Admiral WASHINGTON. Yes, sir.

Senator GERRY. And look after about how many men, 2,000?

Admiral WASHINGTON. More than that—with the overhead and the schools they are running more than 3,000.

Senator GERRY. I was thinking of the apprentices.

Admiral WASHINGTON. The apprentices are about 1,800 to 2,000.

Senator GERRY. That is what I thought.

Senator HALE. Then $185,000 is not enough?

Admiral WASHINGTON. Oh, no; $300,000 is necessary.

Senator HALE. Could you get along with $250,000?

Admiral WASHINGTON. To a less extent than we could with $300,000, sir.

The CHAIRMAN. What have you to say about the item concerning the naval training station at Great Lakes?

Admiral WASHINGTON. The Secretary has written a letter to-day asking that the appropriation be increased to $500,000, and we will get along with that.

The CHAIRMAN. You could get along with $400,000?

Admiral WASHINGTON. We can, Senator, but that $400,000 contemplated practically the abandonment of the station as a training place for apprentices.

Senator BALL. Do they propose disposing of the additional land?

Admiral WASHINGTON. Yes, sir. We have withdrawn all our activities to the east side of the railroad. We have nothing now west of it that we wish to retain, and we have salvaged all the buildings.

Senator BALL. The buildings ought to be painted and cared for; there is no doubt about that.

Admiral WASHINGTON. They are going down very rapidly, but we have had no funds from which to do that.

The CHAIRMAN. Are they of permanent construction?

Admiral WASHINGTON. Some of them are. The original station was of brick and stone. The subsequent camps built during the war were temporary, and those we have been occupying. We have a medical school there of 450 and 600; we have a machinist's-mate school numbering about 2,000. The aviation school ran as high as 2,000, and we have now about 1,200. We also have other schools.

The CHAIRMAN. What is the total appropriation for the Naval Academy at Annapolis? I only want to use it as a comparison. I suppose it is about $500,000 for the Naval Academy, and you have $400,000?

Admiral WASHINGTON. $2,273,595.83.

The CHAIRMAN. Is that for maintenance?

Admiral WASHINGTON. That is the total expenses; maintenance and repairs amount to $1,118,500.

The CHAIRMAN. I don't see why you can not get along with $400,000 at the Great Lakes Naval Training Station.

Admiral WASHINGTON. The idea is to shut up all of the buildings that are not actually used, so far as possible, and to condense the activities to where the buildings can be heated and lighted as economically as possible. That is a very expensive plant, and a great

deal of it is due to the arrangement of the heating system. Coal is the largest item by far. Most of these expenses are paid by "Yards and docks," and I am not familiar enough with the details of it to tell you how it goes, but coal is the greatest item. They have something like 11 heating plants for the entire station.

The CHAIRMAN. We come now to the next section, page 12, line 12. I see, Senator Swanson, that refers to the mine depot at Yorktown.

Admiral McVAY. We had to buy quite a bit of land there, sufficient for the needs of the mine depot, and in addition to that to provide a safety zone one-half mile around the station. The question is now being taken up by a board of appraisal. That board discussed the question with me a couple of days ago, and I told them that if a sufficient number of landholders there were willing to take back the land that we could do it, but if there are a large number of landholders who do not wish to take back the land, we had better keep it. My experience is that every time we give up land to-day, 20 or 30 years later we buy it back at a higher price.

I think the safety zone is advisable. It is purely a question of economy. I think the bill should pass as it is, because it gives the department an opportunity to act for the best interests of the Government as well as the people there.

Senator SWANSON. You mean as it passed the House?

Admiral McVAY. Yes, sir. If we have to take over little spots of this land it will be of no use to us, and we would want the right to sell it.

Senator SWANSON. That is your main depot for mines and explosives?

Admiral McVAY. That are used in mines; yes, sir. We are putting quite a lot of explosives there, to get them away from Norfolk.

Admiral COONTZ. The Secretary has asked me to handle the East Camp question. He recommends in the pending naval appropriation bill, on page 13, line 3, following the word "Illinois," the insertion of, "and East Camp, Hampton Roads, Virginia." Also on page 13, line 6, strike out the words, "together with," and insert in lieu thereof "also any."

Senator HALE. How does that change it?

Admiral COONTZ. I would have to read it. This letter has just come to me. Also the following amendment:

FEBRUARY 18, 1921.

MY DEAR MR. CHAIRMAN: Referring to the pending naval appropriation bill, I beg to request that—

On page 13, line 3, after the comma following the word "Illinois," insert "and East Camp, Hampton Roads, Virginia."

On page 13, line 6, strike out the words "together with," and insert in lieu thereof "also any."

On page 13, line 6, after the word "improvements," insert the words "that have been."

These amendments are necessary to enable the department to dispose of the improvements on the property at East Camp, Hampton Roads, Va., where the land is not now owned by the Government.

Sincerely, yours,

JOSEPHUS DANIELS.

Hon. CARROLL S. PAGE,
Chairman Committee on Naval Affairs,
United States Senate, Washington, D. C.

This allows a considerable portion of the land there to be turned back to the owners at once that has not been used at all. I understand

the percentage paid for is 3 per cent on the valuation of $139,000, and it will allow the Secretary to sell or otherwise dispose or salvage the improvements that are on certain parts of the land. It puts it in the same class in a way with Chicago, and also with the mine depot at Yorktown, and will allow the matter to be handled, we believe, to the best interests of the Government.

The House Naval Committee were unable to agree to purchase the land and then have it sold, but to pay the rentals and settle with the various owners, a lot of which it is believed can be done collectively, and then salvage whatever is desired.

Senator SWANSON. A part of the land there now, I understand, is at present not necessary?

Admiral COONTZ. Yes, sir.

Senator SWANSON. And while they condemned the land and put improvements on it they ought to be able to exercise the option of selling the land or removing the improvements?

Admiral COONTZ. Yes, sir. There are a number of matters that could be well salvaged, like laundries, and things of that character. To purchase the land it was believed it would cost about $320,000, and they did not think it proper to do that, that they would get more out of it by paying rental and selling to the owners.

The CHAIRMAN. For the naval training station, etc., at Hampton Roads, page 14, beginning line 18 of the bill, I see they got what they asked for. How did that happen?

Admiral WASHINGTON. The main reason for that was that Hampton Roads is our main training station, and they granted the whole amount asked for.

Senator BALL. The House bill carries all that the department asked for?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. Naval Reserve Force, page 15, $50,000?

Admiral WASHINGTON. The Secretary has a letter about that which is coming up to-day, in which he asks that the appropriation for the summer school be inserted. Last year Congress gave us $200,000 for maintaining summer schools for boys, the course taking about six weeks. As a result of that boys came from all over the country, and it was most satisfactory. We had one at Hampton Roads and one at the Great Lakes. In those we had about 2,000 boys to whom we gave six weeks' instruction. This year the House omitted that, and the Secretary has written a letter asking that it be reinserted. The general tone of the letters we received from the parents of these boys was most commendatory.

The CHAIRMAN. For maintenance of receiving barracks, $50,000?

Admiral WASHINGTON. One more thing there, sir. The Secretary asks that an addition be made to that provision of last year, authorizing these two summer schools, to the following effect:

> The Secretary of the Navy is hereby authorized, in his discretion, to establish at two of the permanent training stations experimental summer schools for boys between the ages of sixteen and twenty years. For this purpose he is authorized to use such buildings or other accommodations at such training stations, to loan any naval equipment necessary for such purposes, and to give instructions which will fit them for service in the Navy of the United States. He is empowered to establish and enforce such rules within the camp as may be necessary, and to detail such members of the naval personnel as may be required in order to encourage and execute the spirit of this act. The Secretary

of the Navy is further authorized to loan the necessary naval uniforms during the period of training and to furnish subsistence, medical attendance, and other necessary incidental expenses for those attending these schools: *Provided*, That those under instruction, with the consent of their parents or their guardians, shall enroll in the Naval Reserve Force for not less than three months, and no person not so enrolled shall be admitted to said training schools. For carrying out the provisions of this paragraph the sum of $200,000 is appropriated: *Provided further*, That the appropriation shall be available to reimburse other appropriations for the Naval Establishment for any expenses incurred in connection with members of the Naval Reserve Force who enrolled in accordance with this section for attendance at the experimental summer schools.

The reason for that was the accounting officers held that these boys as soon as enrolled were on the same basis as if enrolled in the reserve force, and were in the pay of the Navy, and their expense of transportation, etc., was charged against the regular naval appropriation, so that the $200,000 was not fully used for this purpose, and the greater part of it was turned back into the Treasury, and now we wish to use the money, the $200,000, for the purpose of carrying on the school in all its respects and have asked that the wording of the section be changed accordingly.

Senator HALE. You believe in keeping the reserve up in every way possible?

Admiral WASHINGTON. Yes, sir.

Senator HALE. There is some further legislation in the bill cutting this down?

Admiral WASHINGTON. I do not think that is in this bill. I think it is in the Naval Affairs Committee bill, which was introduced but has not passed the House.

Senator HALE. And probably will not come up this session?

Admiral WASHINGTON. Probably not. This bill does not cut the reserve pay down, but it does cut the total amount. Our estimate was $10,000,000, and they cut it to $7,000,000 for reserves. I do not know whether we can possibly get along with it or not.

Admiral PEOPLES. No; we can not.

Admiral WASHINGTON. That was just a lump sum.

The CHAIRMAN. It is now 1 o'clock, and the committee will take a recess until 2 o'clock.

(Thereupon, at 1 o'clock p. m., a recess was taken until 2 o'clock p. m.)

AFTER RECESS.

The subcommittee reconvened at 2 o'clock p. m.

The CHAIRMAN. The committee will be in order.

Admiral, the next item is receiving barracks—maintenance of receiving barracks, $50,000.

STATEMENT OF REAR ADMIRAL THOMAS WASHINGTON—Resumed.

Admiral WASHINGTON. In the item just above that, Naval Reserve Force, I wish to request that on page 15, line 4, that we strike out the word "and" and insert after the word "janitors"——

Senator HALE. Page 15, line 4?

Admiral WASHINGTON. Yes, sir; strike out the word "and" and insert "and for actual and necessary expenses, in lieu of mileage and

travel expenses in connection with the organization and administration of the Naval Reserve Force."

That allows us to pay necessary expenses instead of mileage when desired. At the present time we have no means of paying the necessary expenses of reserve officers, for instance, when we send them around to help out with drills and instructions of the reserve force.

The CHAIRMAN. There is nothing in the general provisions of the general appropriation that can be applied to that?

Admiral WASHINGTON. No, sir.

Senator HALE. Why was the word "and" cut out in line 6?

The CHAIRMAN. It should be a comma there.

Senator SWANSON. That comma stays there.

The CHAIRMAN. Has this ever been allowed before?

Admiral WASHINGTON. No, sir; it is something new. We did not ask for any increase of appropriation, but only the insertion of that proviso.

Senator SWANSON. Does that mean that you could put reserve officers on active duty?

Admiral WASHINGTON. No, sir.

Senator HALE. You recommend the increase asked for by the Secretary of the Navy? He asked for $50,000.

Admiral WASHINGTON. That was originally in the provision passed last June which allowed us also to use the money checked against reservists for nonperformance of drills. This past year this checkage amounted to nearly $100,000, and, assuming the same amount next year, it will give $150,000, including this sum appropriated by the House.

The CHAIRMAN. You are asking for $150,000?

Admiral WASHINGTON. No, sir; that will be the amount if we get the same checkages of officers and men who do not carry on the drills during the coming year. The law allows that.

Senator HALE. I understood the Secretary asked for an additional appropriation.

Admiral WASHINGTON. I did not know that.

Senator HALE. He has written a letter, has he not?

Admiral WASHINGTON. I do not think so.

The CHAIRMAN. Yes; he has, in regard to summer schools.

Admiral WASHINGTON. That is a different thing.

The CHAIRMAN. His item for summer schools is to go in here, is it not?

Admiral WASHINGTON. It is to go in ahead of that, as a separate item. It has no bearing on the reserves. The reserves, that this item covers, are the regular naval reserves. The schools are for those boys who only enlist for the 3-month period. It will come in between lines 2 and 3 as a separate item—summer schools.

Senator BALL. How much is asked for that?

Admiral WASHINGTON. $200,000.

The CHAIRMAN. I thought we were talking, before we had a recess, about the amount under the head of Naval Reserve Force, and that we had finished that. What have you to say about that $50,000 item? Is that sufficient?

Admiral WASHINGTON. Yes, sir.

Senator HALE. With the clause you suggest?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. The only difference in the clause added would be that it would make an additional demand on the funds. We will pass that. What have you to say about the item "Receiving barracks"?

Admiral WASHINGTON. The Secretary has written a letter asking that that be increased to $100,000. That is the amount we had last year and that we really need.

The CHAIRMAN. What does he estimate $200,000 for?

Admiral WASHINGTON. That was the original estimate on the basis of 143,000 men. If we are going to have 100,000 men only——

The CHAIRMAN. What would you need for 110,000 men?

Admiral WASHINGTON. There would be no material increase; $100,000 would be sufficient to get along with.

The CHAIRMAN. How about "Naval War College, Rhode Island"?

Admiral WASHINGTON. That is the same appropriation they gave us last year.

Senator HALE. In all these items, Admiral, I think you should give us the difference if we had 110,000 and 120,000 men.

Admiral WASHINGTON. I will do that. As to the Naval Home, we ask for no increase.

The CHAIRMAN. I would like to mention now, in the statement I asked you awhile ago to prepare for us——

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. I would like you to state the amount in case you have 110,000 and the amount if you have 120,000 and the amount if you have 100,000?

Admiral WASHINGTON. Those three items?

The CHAIRMAN. Yes.

Senator HALE. And in the statement you can tell how it affects the legislation in the bill.

Admiral WASHINGTON. I have nothing more except the item under "Naval Academy."

Senator HALE. What page is that?

Admiral WASHINGTON. Page 33. On page 35, under "Commissary department," line 6, the House committee cut out an item for the employment and wages of waiters and men of that character.

Senator HALE. What page is that?

Admiral WASHINGTON. Page 35, under the head of "Commissary department." Without changing the wording of the bill, they simply reduce the amount by $152,000, and we ask that that be reinserted. The occasion for that reduction was the fact that for the past two years, during the very difficult time of obtaining servants, we have allowed them to have enlisted men of the Navy to perform the duties of attending the midshipmen's mess, and if the Navy is reduced we can not afford to let them have the 420 mess attendants from the Regular Navy. That is what the superintendent has asked, and we request that the $152,000 deducted by the House be reinserted in the bill.

The CHAIRMAN. Has that been returned to the Treasury? It is not a continuing affair.

Admiral WASHINGTON. It is turned in each year to the Treasury.

The CHAIRMAN. And what is the total—$152,000?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. That is the estimate?

Admiral WASHINGTON. Yes, sir.

Senator KEYES. That is what you ask for?

Admiral WASHINGTON. Yes, sir; to have the amount reinserted, which amount was not included on the supposition we would continue to let the midshipmen have the enlisted men as mess attendants, which we can not do if the Navy is reduced.

On page 37 it will appear in line 20—it will increase that amount by the same sum, making, in all, $2,425,395.83.

Senator HALE. Two million and what?

Admiral WASHINGTON. $2,425,795.83.

Senator HALE. $2,425,795?

Admiral WASHINGTON. Yes, sir.

Senator HALE. The two figures you gave are different.

Senator KEYES. That is just the difference caused by adding that additional amount.

Senator HALE. Oh, it is the total?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. Is that all, Admiral?

Admiral WASHINGTON. That is all, sir.

The CHAIRMAN. That Naval Home at Philadelphia is all right?

Admiral WASHINGTON. Yes, sir; that is paid out of the pension fund and does not come out of the Treasury.

The CHAIRMAN. Now, we have worked to the head of "Aviation."

STATEMENT OF REAR ADMIRAL ROBERT E. COONTZ, CHEIF OF NAVAL OPERATIONS.

Admiral COONTZ. Under the head of "Aviation," I would like to make a short statement and then I will let Capt. Craven carry on.

The House bill was expected to be in two parts, one giving us six million, nine hundred and some odd thousand in that bill, and another bill providing, in a special bill, for about $9,000,000. Of course the special legislation bill failed to pass, and all that there is in the bill is this amount. The two principal things that I wish to call attention to——

The CHAIRMAN. Let me ask you this: Was the item $6,915,000 fixed by the House committee on the assumption that these other items were going to be added?

Admiral COONTZ. Yes, sir; making a total of fifteen or sixteen million dollars. We have two important provisions that will be presented later—one in the legislative bill and the other on increase in the Navy. In the legislative bill we are asking to have a Bureau of Aviation in the Navy Department, in order that all these activities may be coordinated under one head and one officer placed in full and complete control.

Senator HALE. What do you mean? Will be presented later in the legislative bill? The legislative bill has already gone through.

Admiral COONTZ. I mean in the legislative part of this bill that Senator Poindexter is going to consider at the end.

Senator HALE. Oh, I see.

Admiral COONTZ. The other item covers two seaplane carriers, which will cost, I think, between or about $24,600,000 each, and for which we ask an appropriation for one-third of that amount to be

added to the increase of the Navy for the current year. That would be $8,260,000 each.

The CHAIRMAN. What is the limit of cost of these?

Admiral COONTZ. $24,600,000 each. Of course that subject was considered by your committee when we talked it over the other day and the subject of whether or not you should leave out certain vessels already provided for and not contracted for. That, of course, can be taken up. Those were destroyers and three submarines. The transport was not touched. That is a matter, of course, to be taken up later on.

The whole matter of the control of the air forces—I think that was brought up the other day and I do not think it is necessary to talk any more about that before the committee. Of course we believe in a separate naval air force. We believe men trained in our service should be seagoing people and that aviation is just one part of what the Navy men do. We must have the battleships and battle cruisers and destroyers and submarines and airships; in other words, the man who commands airships in his earlier days may, later on, command a fleet and may command it in the air—we can not tell. We believe the most important thing before us is to get those seaplane carriers started so we may be on a par with various of the other nations.

The amount we are asking in this bill and which we have scaled down—we think to the lowest compatible limit—is about $22,000,000. I would like to ask Capt. Craven to go ahead and read the Secretary's letter and make any statement he desires to.

The CHAIRMAN. Before he goes ahead, I would like to see if I understand this provision correctly. It contains nothing whatever for the procurement of new aircraft, does it?

Admiral COONTZ. No, sir. It was supposed that that would be new legislation and if provided for in that special bill, there would be no authority for calling it up.

The CHAIRMAN. Probably Capt. Craven will cover this, but what position would that leave the dirigible in now under construction?

Capt. CRAVEN. Unless the sums provided in the House are increased, the dirigible under construction in this country would have to be abandoned.

The CHAIRMAN. What is the status of that construction?

Capt. CRAVEN. A considerable sum of money has been spent on it for the designing of the ship, and tests, experimental work with materials, and the preparation for the erecting of the ship. The erection of the ship will proceed just as soon as the hangar will permit it. I think about a million dollars has been invested in the ship.

Senator SWANSON. How much has been provided for it?

Capt. CRAVEN. $1,500,000.

Senator SWANSON. That was not to complete it, but to start it?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. What is the total cost to be?

Capt. CRAVEN. We are asking for a million dollars in this year's appropriation, although some of last year's appropriation will lapse on the 1st of July.

Senator SWANSON. What will the total amount to?

Capt. CRAVEN. Something over $2,000,000.

Senator SWANSON. You have already spent nearly one-half of the amount, then?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. How much of that sum will be unexpended at the close of this fiscal year?

Capt. CRAVEN. I have not got the figures.

The CHAIRMAN. I had been informed it would be something like a million and a half unexpended appropriation that would lapse unless it is renewed—aircraft construction.

Capt. CRAVEN. I think about one-half of that amount has been spent already in this ship.

The CHAIRMAN. I wish you would look up that balance that will remain over unexpended from previous appropriations for aircraft construction.

Capt. CRAVEN. Yes, sir; and I will attach a statement to my hearings.

The CHAIRMAN. Let me ask you also what is the status of appropriations with reference to this ship we are getting from Great Britain?

Statement of condition of funds allotted and expended in connection with the construction of the rigid airship "ZR-1."

1920—Appropriated	$1,500,000
Expended	800,000
Balance unexpended	700,000
1921—Appropriated	1,500,000
Expended to Feb. 18, 1921	100,000
Obligated and to be expended by June 30, 1921	400,000
Balance unexpended	1,000,000
1922—Estimate required to complete airship	1,000,000

Allocation of current aviation appropriation of $20,000,000, Feb. 19, 1921.

To—	Already allotted.	Allocations proposed.		Balance expected to remain at end of fiscal year.
Bureau of Construction and Repair.	$2,887,255.00	Subhead 1. To purchase 2 nonrigid airships, 3 kite balloons, 21 airplanes (various types) and to continue authorized construction of Vought and NC-type planes at naval aircraft factory (to be completed prior to July 1, 1921).	$1,083,577.20	
		Subhead 2. To buy equipment, parachutes, instruments, etc.	29,000.00	
		Subhead 3. To continue work on rigid airship ZR-1 to July 1, 1921.	113,000.00	
		Subhead 6. To continue maintenance at stations and naval aircraft to July 1, 1921.	609,320.00	
		Subhead 7. To continue experimental projects already authorized at naval aircraft factory and navy yards to July 1, 1921, including experimental catapults, metal planes, giant boat, and to purchase 12 experimental planes (various types).	841,000.00	
		Total	2,675,897.20	[1] $850,000.00

[1] Unexpended for rigid to be constructed at Lakehurst—reappropriation of this amount or $1,000,000 is asked for 1922.

Allocation of current aviation appropriation of $20,000,000, Feb. 19, 1921—Con.

To—	Already allotted.	Allocations proposed.		Balance expected to remain at end of fiscal year.
Bureau of Engineering..	$5,305,420.54	Subhead 1. To purchase power plants for 2 nonrigid airships, 21 airplanes (various types), and Vought and NC type planes at naval aircraft factory (to be completed by July 1, 1921).....	$462,550.46	
		Subhead 2. To buy equipment, radio, etc.....	137,000.00	
		Subhead 3. To continue work for rigid airship ZR-1 to July 1, 1921..	75,000.00	
		Subhead 7. To purchase power plants for 12 experimental airplanes (various types) and to continue projects already authorized to July 1, 1921..	240,000.00	
		Total.....	914,550.46	[1] $150,000.00
Bureau of Yards and Docks.	4,384,276.80	.....	.....	[2] 2,000,000.00
Bureau of Navigation...	180,000.00	Aviation mechanics' school (training), $10,000.....		−10,000.00
Bureau of Supplies and Accounts.	166,144.31	Maintenance, January to July, 1921, $200,000.....		11,455.69
Secretary's office.....	275,000.00	.....	.....	.....
Total.....	13,198,096.65	$3,800,447.66.....		3,001,455.69

[1] Unexpended for rigid to be constructed at Lakehurst—reappropriation of this amount or $1,000,000 is asked for 1922.
[2] Reserved for hangar on west coast—will be expended under contract immediately when site is authorized.

Capt. CRAVEN. The sum of $2,500,000 was appropriated for the purchase of that ship, $2,000,000 of which was to go for the ship proper and $500,000 to cover the expense of the contingent of officers and men which we have in Great Britain learning to operate these ships, the housing of the ship and the incidental expenses of the ship before she is sent to this country.

The CHAIRMAN. How is she to come to this country—under her own power?

Capt. CRAVEN. Yes, sir; we expect to bring her here under her own power by the end of July.

The CHAIRMAN. Do you think that will be carried out?

Capt. CRAVEN. Yes, sir; the ship will be finished next month and will be taken out and tested, and with the completion of the hangar on the 1st of July, it will be possible to bring her over.

The CHAIRMAN. Under the appropriations in the bill?

Capt. CRAVEN. Yes, sir; we require some more money for Lakehurst, for the hangar, but we have enough money to carry out that part of the plan.

The CHAIRMAN. Will those funds be available in July?

Capt. CRAVEN. Yes, sir; those things are all under contract.

The CHAIRMAN. So that the appropriation is regarded as already expended?

Capt. CRAVEN. Yes, sir; as far as this ship is concerned.

The CHAIRMAN. Well, we will hear any statement you desire to make on the subject of aviation.

STATEMENT OF CAPT. T. T. CRAVEN, DIRECTOR OF NAVAL AVIATION.

Capt. CRAVEN. Admiral Coontz has set forth the general situation. The only sums carried for aviation are those approved by the Appropriations Committee in the House, set forth here. The amounts proposed by the Naval Committee do not appear, and with the figures as they stand it will be impossible to carry on aviation at all in its present fashion.

No money is proposed for new construction whatever, either of flying equipment or for new construction on the ground which would permit flying. The amounts which we have asked for and which we consider urgent for the purposes of operation have been materially reduced.

The amounts which we asked for experimentation have been practically cut in half.

Senator SWANSON. What did you ask for?

Capt. CRAVEN. We asked for experimentation, $3,405,000. The figures contained in this act are $1,615,000.

Senator SWANSON. And did you make an itemized statement of the purposes for which you would use the amounts?

Capt. CRAVEN. Yes, sir; I have it here.

Senator SWANSON. Put it in your testimony.

Capt. CRAVEN. The figures here are given in great detail for the operation and maintenance of our various stations, and rather than to curtail our activities during the coming year we hope to increase them, because during the summer we expect the *Langley* to be commissioned. The *Langley* is a vessel converted into a carrier. Formerly she was the *Jupiter*. She will be be placed in the fleet during the coming summer. We have also another vessel, a seaplane tender, the *Wright*, also to be put in commission during July.

The CHAIRMAN. Is that a converted vessel?

Capt. CRAVEN. She was a Shipping Board vessel turned over to the Navy for our purposes.

Senator HALE. But neither of which will be ideal carriers?

Capt. CRAVEN. No, sir.

The CHAIRMAN. How many planes will the *Jupiter* carry?

Capt. CRAVEN. Between 30 and 40.

The CHAIRMAN. Will she be able to go with the fleet?

Capt. CRAVEN. As far as her low speed will permit. Her maximum speed is 15 knots. She is an old vessel and getting along in years, and probably that speed has been reduced.

Estimates of appropriations, aviation, Navy, 1922.

Item.	Number asked.	Bureau of Construction and Repair.	Bureau of Engineering.	Total.
Subhead No. 1.—Necessary aircraft:				
Ship's spotting planes	7	$105,000	$181,700	$286,700
Ship's fighting planes	17	297,500	364,000	661,500
Torpedo planes	22	990,000	933,000	1,923,000
Photographic planes	.....	.....	.....	.....
Marines—				
Reconnaissance, photographing, and bombing planes	25	437,500	426,000	863,500
Pursuit planes	14	245,000	244,800	489,800
Practice planes	22	330,000	352,000	682,000
Total heavier-than-air craft	107	2,405,000	2,501,500	4,906,500
Free balloons	5	25,000	.....	25,000
Kite balloons	15	225,000	.....	225,000
Small towing airships	1	52,556	7,444	60,000
Nonrigid airship, approximately C size	.....	160,000	.....	160,000
Spares, envelopes, surfaces, winches, cables, etc., for rigids, nonrigids, and kite balloons	.....	150,000	50,000	200,000
Total lighter-than-air craft	21	612,556	57,444	670,000
To continue authorized construction of giant boat	.....	200,000	90,000	290,000
To continue miscellaneous new work (in Government plants) uncompleted July 1, 1921	.....	100,000	50,000	150,000
To continue authorized construction of 1 rigid airship	.....	800,000	200,000	1,000,000
Total combined lighter-than-air and heavier-than-air craft	.....	1,100,000	340,000	1,440,000
Grand total subhead No. 1	.....	.....	.....	7,016,500
Subhead No. 2.—Necessary equipment for lighter-than-air and heavier-than-air craft:				
Miscellaneous equipment for new aircraft	.....	60,000	.....	60,000
Radio accessories and equipment and to replace obsolete equipment	.....	.....	378,720	378,720
Engine spare parts, Liberty, Hispano-Syiza, Union, etc., now in service	.....	.....	500,000	500,000
Power plant equipment for above	.....	.....	50,000	50,000
Total necessary equipment	.....	60,000	928,720	988,720

Item.	Bureau of Yards and Docks.	Bureau of Engineering.	Total.
Subhead No. 3.—New construction at stations:			
Cape May	$25,000	.....	$25,000
Coco Solo	392,000	$104,000	402,000
Hampton Roads	70,000	8,000	78,000
Lakehurst	360,000	100,000	460,000
Pearl Harbor	200,000	10,000	210,000
Pensacola	120,000	10,000	130,000
San Diego	123,000	41,000	164,000
Great Lakes	.....	20,000	20,000
Total	1,290,000	199,000	1,489,000
Marines—			
Guam	50,000	.....	50,000
Quantico	50,000	.....	50,000
San Diego (Dutch Flats)	75,000	.....	75,000
Total	175,000	.....	175,000
New projects (proposed stations), Pacific coast (rigid station), (including procurement of land)	1,200,000	250,000	1,450,000
Total	2,265,000	449,000	3,114,000

Estimates of appropriations, aviation, Navy, 1922—Continued.

Item.	Bureau of Navigation.	Total.
Subhead No. 4.—Navigation new equipment:		
Navigation equipment	$16,250	.....
Photographic equipment	16,000	.....
Aerological equipment	7,000	.....
Equipment and installation of instrument-repair shops	10,000	.....
Total	49,250	$49,250

Estimates of appropriations, aviation, Navy, 1922, for $22,259,590.

Stations and activities.	Bureau of Construction and Repairs.	Bureau of Engineering.	Bureau of Yards and Docks.	Bureau of Supplies and Accounts.	Bureau of Navigation.	Total.
Subhead No. 5.—Maintenance and operation of aircraft factory helium plant, air stations, etc.:						
Atlantic Fleet—						
Langley	.....	.....	.....	.....	$3,000	$3,000
Shawmut	.....	.....	.....	.....	3,000	3,000
NC Tender	.....	.....	.....	.....	1,000	1,000
Battleships	.....	.....	.....	.....	.....	.....
Landing fields	$118,000	$439,855	$50,000	$9,000	600	617,455
Pacific Fleet—						
Wright	.....	.....	.....	.....	3,000	3,000
Aroostook	.....	.....	.....	.....	3,000	3,000
NC Tender	.....	.....	.....	.....	1,000	1,000
Battleships	.....	.....	.....	.....	.....	.....
Landing fields	118,000	439,855	50,000	6,000	600	614,455
Hampton Roads	38,000	105,162	99,000	15,000	5,000	262,162
Pensacola	180,000	564,770	250,000	25,000	6,000	1,025,770
Rockaway	30,000	45,000	30,000	36,000	9,000	150,000
Anacostia	6,000	23,413	16,000	1,200	4,000	50,613
Coco Solo	15,000	134,000	45,000	2,000	4,000	200,000
San Diego	70,000	427,600	250,000	30,000	5,000	782,600
Chatham	600	1,600	2,000	800	.....	5,000
Cape May	90,000	332,581	150,000	2,000	4,000	578,581
Pearl Harbor	20,000	10,000	76,000	10,000	4,000	150,000
Aircraft Factory and Philadelphia Navy Yard	90,000	127,000	40,000	246,000	16,000	519,000
Fleet Supply Base	.....	.....	.....	20,000	.....	20,000
Great Lakes	.....	30,000	.....	600	30,000	60,600
Naval Observatory	.....	.....	.....	.....	20,000	20,000
Lakehurst	134,000	266,000	350,000	3,000	4,000	757,000
Helium Plant	.....	397,000	.....	3,600	.....	400,600
Dahlgren, Va	3,000	15,000	.....	.....	.....	18,000
Washington Navy Yard (wind tunnel and engine testing laboratory)	15,000	50,000	.....	.....	.....	65,000
Marines—						
Quantico	32,000	106,412	104,000	6,000	4,000	252,412
Parris Island	3,500	3,800	1,000	1,200	500	10,000
San Diego (Dutch Flats)	12,000	36,940	30,000	.....	.....	78,940
Haiti	21,000	100,332	21,000	4,800	10,000	157,132
Guam	6,000	36,600	50,000	1,200	3,000	96,800
New projects, Pacific coast (rigid station)	.....	.....	75,000	.....	.....	75,000
Miscellaneous—						
Clothing	.....	.....	.....	5,000	.....	5,000
Overhaul of planes drawn from stores	159,000	41,000	.....	.....	.....	200,000
Miscellaneous (claims, etc.)	22,000	22,000	38,000	11,000	7,000	100,000
Total	1,183,100	3,785,920	1,727,000	439,400	150,700	7,286,120

Grand total subhead No. 5, $7,286,120.

Estimates of appropriations, aviation, Navy, 1922, for $22,259,590—Continued.

Items.	Number asked.	Bureau of Construction and Repair.	Bureau of Engineering.	Bureau of Navigation.	Total.
Subhead No. 6. Experimental work, development of all types of aircraft:					
Experiments in regard to launching devices, catapults, arresting gear, etc., and antiaircraft defenses	.....	$200,000	.....	.....	$200,000
Experimental type A planes	3	75,000	$70,000	.....	145,000
Experimental type B planes	3	90,000	80,000	.....	170,000
Experimental type C planes	3	150,000	100,000	.....	250,000
Experimental miscellaneous construction	.....	175,000	.....	.....	175,000
Total heavier-than-aircraft	9	690,000	250,000	.....	940,000
Combined lighter-than-air craft and heavier-than-air craft:					
Experimental research on materials, accessories, etc	.....	565,000	800,000	.....	1,365,000
To complete miscellaneous experiments uncompleted July 1, 1921	.....	75,000	.....	.....	75,000
Optical equipment	.....	.....	.....	$5,000	5,000
Aneroid instruments	.....	.....	.....	3,000	3,000
Photographic appliances	.....	.....	.....	10,000	10,000
Aerological appliances	.....	.....	.....	5,000	5,000
Miscellaneous, including antiaircraft devices and appliances	.....	500,000	500,000	2,000	1,002,000
Total combined lighter-than-air and heavier-than-air craft	.....	1,140,000	1,300,000	25,000	2,465,000
Total subhead No. 6	.....	1,830,000	1,550,000	25,000	3,405,000

Grand total subhead No. 6, $3,405,000.
Subhead No. 7: Drafting, clerical, and technical help at stations (classified force), $400,000.
Grand total for all subheads, $22,259,590.

The CHAIRMAN. What is the maximum speed of the new battleships?

Capt. CRAVEN. Twenty-three knots.

Senator SWANSON. What is the average speed for the entire fleet?

Capt. CRAVEN. The fleet seldom cruises, economically, at over 15 or 18 knots, but under stress of circumstances, it might be called upon to go very much faster and in that case, of course, the *Jupiter* will fall behind.

Senator HALE. What is the speed of the English carriers?

Capt. CRAVEN. Something over 30 knots for the fastest. They have various speeds. There are seven carriers now in existence, all but two of which were improvised from older vessels and the latest vessel, the *Hermes*, has about 23 or 24 knots.

Senator HALE. And speed is one of the principal factors of a carrier?

Capt. CRAVEN. Yes, sir; it is a lasting thing when built in a ship and it is a valuable characteristic that can not be placed in a ship once built.

Senator HALE. What is the speed of the British ships?

Capt. CRAVEN. The fastest is the *Furious*. She makes 31 knots.

Senator HALE. How fast is the slowest?

Capt. CRAVEN. The slowest is about 11 knots, the old *Ark Royal*. She was the first vessel, and of the type of the *Wright*, the one we are converting now. She was not properly a carrier but a tender. She carried seaplanes, but they were not flown from her decks.

Senator HALE. How many are they converting?

Capt. CRAVEN. They are not converting any more. They have just finished building one for that purpose.

The CHAIRMAN. Have they any others under construction?

Capt. CRAVEN. No, sir; not that I know of.

The CHAIRMAN. How many others are there?

Capt. CRAVEN. The latest carrier is the *Hermes*, which is a vessel of nearly 550 feet in length and of 25 knots speed. The *Eagle*, another vessel of the British fleet, is 650 feet long approximately and of 24 knots speed.

Senator HALE. Are these converted vessels?

Capt. CRAVEN. The *Hermes* was not. The *Eagle* was. She was to be a battleship. The *Argus* was laid down as a battleship, but early in the game converted into a carrier. Her length is about 570 feet and her speed is 21 knots.

The *Furious* was intended as a fast cruiser, armed with 18-inch guns. They were taken out before she was completed and she was converted into a carrier. She has a length of about 780 feet over all and has a speed of 31½ knots.

Besides those vessels, which are the important carriers of the British fleet, there are the *Vindictive*, a vessel of 650 feet in length, making about 30 knots. The *Pegasus* is a merchant-type ship, about 330 feet long, with a speed of 20¼ knots, and the *Ark Royal*, an old ship, 360 feet long, with a speed of 11 knots. During the war they had another vessel, the *Compagnia*, a merchant vessel, which was sunk.

The CHAIRMAN. What is the total capacity in planes of the entire fleet?

Capt. CRAVEN. Assuming each one to carry 40 planes, I should say the maximum would be about 230 planes.

The CHAIRMAN. How many planes have they—Great Britain?

Capt. CRAVEN. Planes?

The CHAIRMAN. Yes.

Capt. CRAVEN. I am unable to answer that, Mr. Chairman. I do not know. The planes come and go so rapidly, it is impossible to estimate the number now on hand.

The CHAIRMAN. How about dirigibles, then?

Capt. CRAVEN. Dirigibles—the English have recently decided to sell two rigids or turn them to commercial use. They hope to use them commercially. From a newspaper report published the other day, they have decided—I think largely from economic reasons—at the present time not to continue their rigids.

Senator SWANSON. Not at all—abandon them all?

Capt. CRAVEN. That is reported in the newspapers. I can not speak of this with authority. They have been using one rigid with their fleet recently in maneuvers.

The CHAIRMAN. What is the Japanese equipment and program in regard to aviation?

Capt. CRAVEN. Our figures from Japan are rather vague. We know or hear that recently she has become very active. It is reported that she is procuring a great deal of material from Germany; that she is obtaining instructors from both France and England; that she is taking active steps to organize squadrons for naval purposes, establishing aviation schools, and aviation centers on her coast, and has laid down one carrier and is proposing to lay down another.

We also hear that planes are carried on her battleships and have been used recently in maneuvers.

Senator SWANSON. On all battleships?

Capt. CRAVEN. I do not know that. It has been reported she plans to carry them on all battleships.

Senator HALE. Do you know anything about the details of the carrier laid down?

Capt. CRAVEN. Nothing beyond the reported tonnage, which is about 14,000.

Senator SWANSON. Will you make up, in the office of Naval Intelligence and in your office, a comparative statement as to the present capacity of Japan and Great Britain in aviation in all directions, and ours?

Capt. CRAVEN. We have that already pretty well in hand. We have the figures already, but they are pretty hard to substantiate.

Senator SWANSON. Will you put them into the record?

Capt. CRAVEN. Yes, sir.

The CHAIRMAN. You should include in that not only what you have at present but what their program is.

Senator SWANSON. First, what they have and what is the program of the three nations—as at present appropriated, what they will amount to.

Capt. CRAVEN. We have the figures in regard to the personnel right here, but figures in regard to planes and equipment, of course, are difficult to obtain.

The CHAIRMAN. I want to ask about planes, bearing on the immediate items of appropriation we are now considering.

Capt. CRAVEN. Yes, sir.

The CHAIRMAN. What have you to say about the relative merits of the Japanese and British heavier-than-air naval planes as compared with ours—I mean as to speed and efficiency?

Capt. CRAVEN. It is rather a difficult question to answer, Mr. Chairman. The Japanese are young in aviation and they follow the lead of the country they think is supreme. At the present time, I think, they are under the British idea so far as naval aviation is concerned. We hear that they have English naval people there experienced in air matters—I understand there are 30 such now there.

In regard to planes, I think Japan has not, so far, built planes in her own country in any great numbers. We understand, however, they are contemplating establishing the industry in Japan.

The plane for naval purposes all over the world is behind in its development by comparison with the plane which is in use over land to-day. I think I am correct in saying that the proper plane or ideal plane to be carried on ships has not yet been developed anywhere. England is striving for it, and everyone is striving for it, but it is going to take money and two or three years to get it, but it has not yet been developed. We require money to permit the development of materials, opportunity to investigate the usefulness of the art, and organization which will enable us to attack the problem directly.

The CHAIRMAN. You will have different types?

Capt. CRAVEN. Yes, sir; we will have different types, but there are certain characteristics which will have to appear in those types.

The CHAIRMAN. You have bombing planes, torpedo planes, and fighting planes?

Capt. CRAVEN. Yes, sir; those are the ordinary types that the man on land thinks of, but in addition to carrying bombs, torpedoes, etc., the sailor has to have a plane which will float, and a plane which will take down and permit of being stored away in the superstructure of the ship or inside. He must have a plane that will fly from the deck of a ship in a short space or be projected by a catapult. He has to have a plane that will have a low landing speed to enable it to light on the deck of a ship, etc.

The landsman does not have to have these characteristics. Up to the present time the naval designs have been dominated somewhat by land ideas, and our development of planes has been restricted somewhat by our hope of utilizing the land machines. We have to get away from that plan and develop our own planes. As you know, the land planes during the war progressed and were developed intensively, and the naval plane for use on ships did not come along in the same way at all. We can not develop those planes until we get a carrier or something to work from. We hope to use the *Jupiter* successfully for that.

The CHAIRMAN. You need not state details or facts you think should not be stated; but, generally, what are you doing toward the development of such a plane?

Capt. CRAVEN. We have recently encouraged competition in designs, incorporating these principles that I have sketched to you, and we hope to get ideas from the manufacturers. I understand that some 27 designs have been submitted to the department recently along those lines.

The CHAIRMAN. Is it the policy of the department to encourage private manufacture of planes?

Capt. CRAVEN. Yes, sir; it is. We, of course, supplement the efforts of private manufacturers experimentally in the factory which we have at Philadelphia, which is very useful and will always be very useful for that purpose.

In addition to encouraging this competition we try to keep ourselves advised of developments abroad and have procured planes of various characteristics which have come out in Italy and in England hoping to get ideas from them—and also from Germany.

Senator HALE. Do all planes have to be provided with facilities for landing on the water?

Capt. CRAVEN. Every plane that flies over the water should be prepared to come down on the water.

Senator HALE. That is, it has to have its boats?

Capt. CRAVEN. The precise form of flotation has not yet been determined. Some have floats and some have bags which provide flotation.

Senator HALE. Air bags?

Capt. CRAVEN. Yes, sir; some have pontoons, as you know, and others have boat structures. But the precise form of our ultimate development we do not know as yet. We hope to get it within the next few months from the experience which our aviators have had during the last year in the two fleets. We hope soon to get some concise and definite and helpful suggestions.

Senator HALE. But an ordinary land machine could not land on a carrier?

Capt. CRAVEN. It might if its speed was low enough, but the point is that in operating from time to time you have engine failures. Engine failures over land harm no one if there is a landing field available. Over the water, unless you have flotation, there is no landing place whatever, and without it in the ordinary activities of aviation at sea a commander of a fleet or the commander of a vessel would hesitate to use aviation in the broad way he should in order to develop tactics of aviation and to develop the possibilities of aviation. He must be assured of moderate safety of the pilots, and he can not have that safety unless there is flotation. That is the reason for the type of machine of which I speak. Unless that type of machine comes, we will not have aviation over the water.

The CHAIRMAN. Admiral Coontz, Senator New has spoken to me several times about making some provisions toward providing abandoned ships or obsolete ships for tests for airplanes that the Army wants to use. Can you give us information as to whether that can be done; whether there are any ships available for that purpose?

Admiral COONTZ. I will be glad to do so. I will state that the subcommittee of the joint board are considering various experiments that we had settled on a month ago and carried out at sea with bombing, and, in addition to other things, the possibility of the torpedo plane—that is, with the old German ship *Auesfriesland*, and with the *Iowa*, and perhaps others. Those are experiments that the Navy intended to carry on anyway.

Senator HALE. Captain, these two new carriers which we have been discussing, and which would cost about $24,000,000 apiece—what speed are they to have? Can you tell us something about their general characteristics?

Capt. CRAVEN. I should prefer to have Admiral Taylor answer that.

Admiral TAYLOR. They will have a speed of 32¾ knots.

Senator HALE. How long will they be?

Admiral TAYLOR. Between seven and eight hundred feet.

Senator HALE. They will be the equal of any carriers laid down anywhere in the world?

Admiral TAYLOR. They will be superior.

Capt. CRAVEN. I might mention, before I continue. Mr. Chairman, that this morning I brought three letters down from the Secretary of the Navy bearing upon this appropriation. It is probably unnecessary to read the letters.

Senator SWANSON. What appropriation do you ask for?

Capt. CRAVEN. A total of $22,259,590.

The CHAIRMAN. How much did you get last year?

Capt. CRAVEN. $20,000,000.

Senator SWANSON. How much did you spend?

Capt. CRAVEN. We will probably spend $20,000,000, unless the hangar and work which we expected to complete at the start is arrested—there was the construction of a hangar on the Pacific coast——

Senator SWANSON. After all of these expenditures have been made and the contracts entered into have been completed—what will be the situation in the aviation branch of the Navy when all of this $20,000,000 has been expended?

Capt. CRAVEN. At the end of this year?

Senator SWANSON. Yes. Have you that information?

Capt. CRAVEN. No, sir; I can probably work it out.

Senator SWANSON. Will you put that in your evidence—a detailed statement of what you will have accomplished with this $20,000,000?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. And you want $20,000,000?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. Have you a clear detailed statement of the purposes and reasons for that and what will be the situation in the aviation branch of the Navy—the aviation part of the Navy—when this is done?

Capt. CRAVEN. Not exactly in the form you desire, Senator, but I have a complete analysis of how we will use those funds and the reasons for every dollar.

Senator SWANSON. You have the reasons and a detailed statement of the purposes for which it is to be devoted?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. What does the House give you?

Capt. CRAVEN. $6,900,000.

Senator SWANSON. Have you a detailed statement of what you will do with this $6,000,000? Will you furnish us that? If we give you $6,000,000, what would you do with that? Can you give a statement of what you would do, if limited to that?

Capt. CRAVEN. Yes, sir; of course it is detailed somewhat in the bill.

Senator SWANSON. It is not necessary to give it now. You can read it in the evidence.

Capt. CRAVEN. Yes, sir.

Senator SWANSON. And will you supplement that with what would be the deficiency in the aviation branch of the Navy if that is not increased?

Capt. CRAVEN. Yes, sir.

Admiral COONTZ. Of course you know they had two bills—this one of $6,000,000 that went through and another with six or eight million dollars that was not allowed to come up, so that the total appropriation would be about $16,000,000 in the House.

Senator SWANSON. Will you make a statement of what that $16,000,000 would have done?

Senator HALE. This $6,913,000—does that take care of specific things provided for in this bill?

Capt. CRAVEN. Yes, sir. The specific things are outlined here.

Senator HALE. That is satisfactory for those specific things?

Capt. CRAVEN. No, sir; the sums are too small.

Senator HALE. What should it be?

Capt. CRAVEN. $12,580,000, instead of $6,000,000.

Senator HALE. For these items there in the bill?

Capt. CRAVEN. Yes, sir; for the maintenance of aviation, as it now exists, we ask for twelve millions and a half and ten millions more for new materials.

Senator HALE. That is to take care of new projects and stations?

Capt. CRAVEN. Yes, sir.

Senator SMITH. Did they propose that the $6,900,000 they provided should meet the requirements of those propositions you make there,

costing $12,000,000? Did they undertake to say you ought to get through with that amount of money?

Capt. CRAVEN. Yes, sir; these same arguments that I am presenting to you to-day were presented to the Appropriation Committee, and the figures were cut to this six million and some odd thousand dollars.

Senator HALE. I think it would be well for you to go ahead on Senator Swanson's plan and show us how this appropriation of the House would cut down your plans?

Capt. CRAVEN. Yes, sir.

Senator SMITH. As I understand it, this $6,900,000 they propose to give you they claimed should be sufficient to do what you think $12,000,000 is necessary for?

Capt. CRAVEN. The Appropriations Committee came to that conclusion.

Senator SMITH. How did they form their judgment, because I presume the statement you made to them was just the reverse—that you required double that amount? Where do they get this idea that $6,900,000 would do; can you tell us?

Capt. CRAVEN. No, sir; I can not. In addition to the $6,000,000, of course, the House Naval Affairs Committee recommended about $9,000,000 for new projects, but there is no legislation carrying those funds.

Senator SWANSON. Then this appropriation is about $10,000,000 less than in the judgment of the House Naval Committee they thought was necessary to carry out proper aviation?

Now, as to the effectiveness of aircraft for bombing or destructive purposes, what is your opinion as to that?

Capt. CRAVEN. You can destroy anything with bombs, sir.

Senator SWANSON. Can you get down low enough to do it effectively?

Capt. CRAVEN. That is an open question.

Senator SWANSON. When I got the list of submarines destroyed, we were very much disappointed with the number of submarines that were destroyed by aircraft.

Capt. CRAVEN. Yes, sir. I think a competent authority stated some years ago in a book, that the simplest thing in war was difficult. You can take anything on the surface of the water or land and destroy it if you drop bombs on it in sufficient numbers and of sufficient size. You can destroy any ship with guns; you can destroy practically anything that floats with torpedoes; you can destroy any modern ship with a ram or with mines.

Senator SWANSON. We all know that, but the difficulty of aircraft has been you can not get low enough to a ship to destroy a ship without being destroyed yourself by anti-aircraft guns.

Capt. CRAVEN. I am a firm believer in aviation, but one should not project himself too far into the future. You remember the *Goben* was mined twice and beached outside the entrance to the Straits of the Dardanelles where she lay for seven days. She was, as you remember, a battle cruiser, a formidable ship, and she was attacked 247 times by aircraft bombs. 15 tons of bombs were projected at her; 16 hits were made, 3 of which are reported to have been with 500-pound bombs, and yet the ship was taken off and salvaged.

Of course, she made some defense, such as she could, such as everybody would in those circumstances. It is said that she put sand on her

upper deck a couple of feet thick and other precautions were taken, but that simply shows the difficulty of doing things in war.

Senator HALE. Did she have any airplane protection?

Capt. CRAVEN. No, sir; she had no airplane protection, but she had guns.

Senator SWANSON. It has been suggested that you have discovered a way that aircraft could produce a cloud—produce something in which you could hide and get nearer to use these bombs. Has there been any discovery of that kind?

Capt. CRAVEN. When I spoke of the *Goben*, I did not mean to say we would not do better now than then. I think we would. We have made material advances and could probably operate much more effectively against a ship like the *Goben* than formerly. It is very difficult to say what you could not do.

Senator SWANSON. Well, can you create clouds and get in them and hide your airship?

Capt. CRAVEN. In the newspapers; yes, sir. We have not created that cloud yet, but I think we will as we have smoke bombs which promise to be effective and useful.

Senator SWANSON. How near do you have to be to a ship to obtain a moderate degree of accuracy in dropping your bombs?

Capt. CRAVEN. To obtain 100 per cent accuracy you should be on the deck.

Senator SWANSON. I mean, in order to secure a hit once out of 20 times?

Senator SMITH. You mean standing still or sailing?

Senator SWANSON. Under ordinary conditions. Under ordinary conditions a ship does not stand still for you to fire bombs at her.

Capt. CRAVEN. Under battle or peace conditions?

Senator SWANSON. Under battle conditions.

Capt. CRAVEN. I am sorry, sir, but no data have been collected. During the war, the effort to bomb armed ships was not very great and the data collected, as the result of bombing armed ships are not complete.

Senator SWANSON. In this appropriation, how much is designed for scouting planes and how much for destructive—bombing outfits, etc.?

Capt. CRAVEN. We have not separated them that way.

Senator SWANSON. How do you expect to divide your appropriation?

Capt. CRAVEN. I should say about half of the machines we would turn out would be fighting machines and reconnoissance machines and the remainder would be machines carrying torpedoes, which many officers think would be most efficient, as naval weapons. These later machines would be capable of carrying torpedoes or bombs.

Senator SWANSON. Your idea would be to have an aerial torpedo, and that you could start a torpedo with more accuracy than a bomb?

Capt. CRAVEN. Yes, sir; it would be released in the air.

Senator SWANSON. The torpedo would be used in the air the same way as in the water?

Capt. CRAVEN. No, sir; it would be dropped into the water.

Senator SWANSON. Then you would have two elements involved in obtaining accuracy, one dropping into the water and the other directing it after it has hit the water?

Capt. CRAVEN. Yes, sir.

Senator SWANSON. Have you made any tests to determine that?

Capt. CRAVEN. Yes, sir; I would not be here asking for an appropriation at this time if we had not done that. We have had tests of accuracy with the usual types of torpedoes. We are using at the present time a service torpedo. We hope to improve the service torpedo and we hope to get planes to carry the largest service torpedo for that purpose.

Senator HALE. How near does a plane have to come to the water in order to use a torpedo?

Capt. CRAVEN. Fifteen or twenty feet.

Senator HALE. That is pretty close.

Capt. CRAVEN. Yes, sir.

Senator SWANSON. Have you any invention that will permit your directing a torpedo in the air?

Capt. CRAVEN. No, sir; that is yet to be developed.

Senator SWANSON. But are there not experiments being made for a torpedo to be flown in the air like a water-floating torpedo?

Capt. CRAVEN. All large nations for several years have been working with the radio-controlled flying machines, the idea being that you could put bombs and explosives into these machines and fly them where you wish.

Senator SWANSON. During the war the airplane was a best scouting force that the Navy had; it could locate the submarine and cover a large field and use the wireless to notify destroyers of the submarine's location and the destroyers could go and destroy it. In that phase it was one of the most important weapons of fighting submarines?

Capt. CRAVEN. Yes, sir; it was very important.

Senator SWANSON. Do you know how many submarines were destroyed during the war by aircraft?

Capt. CRAVEN. It is very difficult to say.

Senator SWANSON. I have been unable to find a single one, in my reading.

Capt. CRAVEN. I can show you in our records where 43 were attacked by our machines, and the English records on this subject might be quite illuminating.

Senator SWANSON. If they destroyed all they reported they attacked, they destroyed about ten times the number Germany had. They would not have had any at the end of the first six months if they had destroyed all they attacked.

Capt. CRAVEN. That is so.

Senator SWANSON. How many ships and submarines destroyed by aircraft were really reported with an accuracy that is convincing?

Capt. CRAVEN. I can not tell you offhand. I know the number of attacks—just by comparison I will give you the number of attacks reported by our London office about a year and a half ago by destroyers and the number of attacks by aircraft. The number of attacks by destroyers reported by Admiral Knapp was 25, if I am not mistaken.

The number of attacks on submarines by aircraft were 15. That gives you a comparison of the two—the American destroyers and the American aircraft—on the coast of England and in that neighborhood during the war. But these figures were incomplete because they

did not include data from other parts of the world where we were engaged.

Senator SWANSON. These were reports of attacks made, but not as to whether they were effective?

Capt. CRAVEN. It was impossible to decide whether the attack was effective in all cases. Of course, the man directing the attack always thought it was effective. The submarine disappeared, and that was the end of it.

Senator SMITH. It went out of his sight, and therefore he thought he destroyed it?

Capt. CRAVEN. Yes, sir.

The CHAIRMAN. I understand you are asking for approximately $10,000,000 for the procurement of aircraft?

Capt. CRAVEN. Yes, sir.

Senator HALE. And for landing stations and new construction?

Capt. CRAVEN. Yes, sir; new construction and equipment.

Senator HALE. That would include everything?

Capt. CRAVEN. Yes, sir.

The CHAIRMAN. How many aircraft stations have you now for your heavier-than-air and lighter-than-air machines?

Capt. CRAVEN. I will enumerate them.

The CHAIRMAN. Where are they located?

Capt. CRAVEN. The greatest activity is in the fleets—in the Atlantic and Pacific—where we have borrowed a mine sweeper from each organization and supplemented her by assigning destroyers and similar craft as tenders with which to enable us to build up an organization.

On shore we have a station at Chatham, on Cape Cod, which is out of commission. The first active station along the east coast which we have is that outside of New York, at Rockaway. We then have a station, now inoperative, at Cape May, which is out of commission. We are enlarging the old dirigible hangar there and next fall we hope to have that ready to accommodate the rigid that is coming over.

The CHAIRMAN. Is this station at Rockaway for heavier-than-air craft?

Capt. CRAVEN. Yes, sir: although it has a hangar that will accommodate small nonrigid dirigibles. The hangar at Cape May is of the same type, but we have arranged it to accommodate the big dirigible that is coming over.

Our next station is at Hampton Roads. That is perhaps the most important of all.

Those are the only stations on the east coast of the United States now in the possession of the Navy.

We have our school at Pensacola where we have, we think, the finest airplane school in the world.

We have a station at Coco Solo, in the Canal Zone, which is one of those war-time mushroom camps in which the personnel is still living and where, if the station is to be continued, a great deal of money has to be spent to make it suitable.

Senator HALE. That is an important station, strategically, in the Canal Zone?

Capt. CRAVEN. Yes, sir. on the west coast we have only one station, at San Diego. It is very important and is the base for all our activities on the Pacific coast at the present time.

We are building a station at Pearl Harbor in the Hawaiian Islands.

I should have mentioned the rigid station at Lakehurst, N. J., where we are building a hangar for the accommodation of the dirigible ship.

I should also have mentioned the station at Anacostia, at Washington. Those are the only activities we have.

The CHAIRMAN. There is a proviso in the House bill that "no part of this appropriation shall be expended for maintenance of more than six heavier-than-air stations on the coasts of the Continental United States." How many have you now?

Capt. CRAVEN. We have five.

The CHAIRMAN. That includes Coco Solo?

Capt. CRAVEN. Yes, sir.

The CHAIRMAN. Does that include the small experimental station here?

Capt. CRAVEN. No, sir.

The CHAIRMAN. That would have to be included, would it not, under that language—"no more than six heavier-than-air stations"?

Capt. CRAVEN. That is a delicate point. I do not know how far back the coast extends.

Senator SMITH. There are others.

Capt. CRAVEN. I want to retract my former statement. I should have included Quantico for the marines.

Senator HALE. I understood the House in their legislative bill provided nearly $9,000,000 for new construction, taking care of these substations?

Capt. CRAVEN. Yes, sir.

Senator HALE. That is almost what you asked for?

Capt. CRAVEN. Yes, sir.

Senator HALE. If that was in this bill, could you get along with that?

Capt. CRAVEN. The only increase is $1,000,000, which is asked for for the rigid airship.

Senator HALE. That was cut out?

Capt. CRAVEN. Yes, sir.

Senator HALE. So if you had that, you would have substantially what you want for new construction?

Capt. CRAVEN. Yes, sir.

Senator HALE. And what you object to in this bill is the cutting down from $12,000,000 to nearly $7,000,000?

Capt. CRAVEN. Yes, sir.

Senator HALE. So if we should put in the House legislative bill appropriation and should give you an additional amount in this bill to what is already in that, that would take care of aviation?

Capt. CRAVEN. Approximately; yes, sir.

The CHAIRMAN. That would not take care of it unless you changed that item of $440,000?

Capt. CRAVEN. You would have to add $1,000,000 there.

The CHAIRMAN. I wish you would look up and see what would be available of unexpended appropriations already made for that purpose.

Capt. CRAVEN. For that purpose, nothing will be available, because, Mr. Chairman, the money appropriated which could be used for that

ship will revert to the Treasury. We are going to turn in a balance which might be utilized for that purpose on the 1st of July.

The CHAIRMAN. We want to know what will be the amount available from turning into the Treasury.

Senator SWANSON. If we should make a new appropriation or reappropriate that, it would like we were appropriating so much money at this time.

The CHAIRMAN. What have you to say about the amount stricken out in those lines in that bill [exhibiting]—I mean as to the importance of leaving them in, if there is any importance?

Capt. CRAVEN. I think they should remain there. It saves a great deal of trouble to the Navy Department to quiet and settle immediately small claims for damages. The Secretary, I am informed, has asked that that be included.

Senator SWANSON. When that was put in there we had hundreds of little claims around $25 and $50. A flying machine would kill a man's cow, and it was such an aggregate of trouble that we put it in there. It was subject to a point of order, because it was included in an appropriation bill.

Capt. CRAVEN. I would like to direct the attention of the committee to the letters addressed to the committee by Secretary Daniels.

The CHAIRMAN. We would like to have you put them in the record, calling attention to any particular features.

Capt. CRAVEN. He has written one dealing on the general subject of aviation, one inviting attention to the importance of including a provision for a bureau of aeronautics in the Navy Department, and the third deals with the necessity of taking action in regard to the site for a rigid on the west coast, recommending the site selected by the board of Congress which recently inspected naval activities on the west coast and suggested Cape Kearney as the proper place at which to establish a rigid station. He urges upon the committee the importance of including these measures as amendments to this bill. The funds for the purchase of the land are already available. We have it already. A proposition has been made that a certain amount of land shall be given to the Government in that vicinity, the Government to procure additional land for the completion of the station.

The CHAIRMAN. The town of San Diego was to give 25 acres for the construction of the buildings and the other land can be bought at $100 an acre.

Capt. CRAVEN. Yes, sir. I am informed there are many improvements on it, such as sewage, water, etc., and that if the Government does not take the land it will cost a vast sum to restore the property to its former condition.

Senator BALL. There are water, light, roads, sewage, and everything complete.

Capt. CRAVEN. Yes, sir; and gas also.

The CHAIRMAN. Is that all, Captain?

Capt. CRAVEN. Yes, sir. We are going to leave with the committee this draft which I have drawn up of a proposed bill and invite attention to the wishes of the department and to the suggestions of the department in regard to this appropriation.

The CHAIRMAN. Put that in the record, together with the letters from the Secretary.

Senator HALE. When are you going to submit those tables Senator Swanson asked for?

Capt. CRAVEN. It will take me a day or two. I will do the best I can.

(The papers referred to are printed in full, as follows:)

THE SECRETARY OF THE NAVY.
Washington, February 18, 1921.

MY DEAR MR. CHAIRMAN: At the hearing of the House Naval Affairs Committee, after consideration of a bill to provide a bureau of aeronautics in the Navy Department, the committee unanimously approved a bill creating such a bureau. I am inclosing herewith a suggested amendment to the naval appropriation bill, and earnestly urge its incorporation in the pending measure. Long consideration has convinced the department that for the most efficient direction of this new and important branch of naval development, a bureau of aeronautics is essential.

Sincerely, yours, JOSEPHUS DANIELS.

Hon. C. S. PAGE.
Chairman Committee on Naval Affairs,
United States Senate, Washington.

SUGGESTED SENATE AMENDMENT TO NAVAL APPROPRIATION BILL.

That there is hereby created and established in the Department of the Navy a bureau of aeronautics, which shall be charged with matters pertaining to naval aeronautics as may be prescribed by the Secretary of the Navy, and all of the duties of said bureau shall be performed under the authority of the Secretary of the Navy, and its orders shall be considered as emanating from him, and shall have full force and effect as such.

There shall be a chief of the bureau of aeronautics, appointed by the President, by and with the advice and consent of the Senate, from among the officers of the active list of the Navy or Marine Corps, for a period of four years, and who shall, while holding such position, have the corresponding rank and receive the same pay and allowances as are now or may hereafter be prescribed by or in pursuance of law for chiefs of bureaus of the Department of the Navy.

An officer of the active list of the Navy or Marine Corps may be detailed as assistant chief of the bureau of aeronautics, and such officer shall receive the highest pay of his grade, and, in case of the death, resignation, absence, or sickness of the chief of the bureau shall, until otherwise directed by the President, as provided by section 179 of the Revised Statutes, perform the duties of such chief until his successor is appointed or such absence or sickness shall cease.

There shall be a chief clerk at a salary of $2,250 per annum.

The Secretary of the Navy is authorized to transfer to the Bureau of Aeronautics such number of the civilian, technical, clerical, and messenger personnel, together with such records, equipment, and facilities now assigned for aeronautic work under the various bureaus of the Department of the Navy or Marine Corps as in his judgment may be necessary. The unexpended and unobligated portion of all moneys heretofore appropriated for any bureau of the Deparement of the Navy or Marine Corps used in connection with aeronautics, including the appropriation "Aviation, Navy," is hereby made available for the use of the Bureau of Aeronautics.

The number of officers and enlisted men of the Navy and Marine Corps detailed to duty in aircraft and involving actual flying and to duties in connection with aircraft shall hereafter be in accordance with the requirements of naval aviation as determined by the Secretary of the Navy.

THE SECRETARY OF THE NAVY,
Washington, February 18, 1921.

MY DEAR MR. CHAIRMAN: I wish to bring to the attention of your committee with all earnestness the importance of adequate appropriations for aviation in

the bill now under consideration. In the World War we learned, as few had ever dreamed of before, the potential force of fighting in the air. There are people on both sides of the ocean who believe that with the perfection of aircraft it is destined soon to become the most effective engine of war. It is of paramount importance that our Navy be equipped with suitable craft, and that the aircraft cooperating with our fleets on and under the sea shall not be inferior to those of any country in the world. Indeed, we should lead in development as we led in conquering the air.

The prime duty of the Navy at this hour is, by experiment and development and construction, to perfect fighting ships in the air. The naval bill which passed the House and which is now before your committee carries a total of only $6,913,431 for naval aviation. This sum is allocated for the maintenance of activities as they now exist or planned, practically nothing for experiment and development on a scale commensurate with its importance. No appropriation is made for the construction of new aircraft or for new projects.

I do not think it was the purpose of the House to cut the aviation appropriation to so small an amount as contained in the bill, because the Naval Committee of the House unanimously recommended the appropriation of $8,914,750 for new construction. However, the bill approved by the Naval Affairs Committee has not been considered in the House and my information is it will not come up at this session of Congress. Therefore, it is necessary, if our Navy is to have even a respectable strength in the air, that the Senate shall make such increase of appropriations as are absolutely necessary. Careful consideration has been given to the smallest amount that will enable the Navy during the next fiscal year to conduct its operations, developments and experiments on a scale commensurate with its importance will be $22,259,590. This sum is absolutely necessary unless we shall go backward in aviation instead of going forward.

The limited funds contained in the House bill would make it necessary to abandon the erection of a rigid dirigible in this country. This ship has been authorized by Congress, and a considerable sum of money has already been spent upon the design of the vessel and upon the procurement and the fabrication of materials for the construction thereof. The Joint Board of the Army and the Navy has placed the development of rigids in the hands of the Navy and the abandonment of this project would involve the abandonment of the lighter-than-air development in so far as the construction of rigids in the United States is concerned, carrying the wastage of the money already expended upon this vessel.

Unless there is an increase in appropriations for aviation there will be no funds available to supply modern radio equipment to our aircraft. I need not speak of the importance of securing ready communication between aircraft, surface and subsurface vessels.

I wish to urge upon your committee the importance of appropriating for the construction of airplane carriers vessels regularly equipped for carrying planes in connection with fleet activities. The best experts in this country and abroad believe that unless vessels of this class are placed with the fleet full power of organization can not be developed and our forces would be at serious disadvantage if engaged with forces of other nations provided with these essentials to a fleet.

The impelling reason of adding aircraft carriers for the fleet will be brought to your attention in their personal hearings by Admirals Coontz, Griffin, and Taylor, and I wish to approve their recommendation.

The department feels that failure at this time to provide the fleet with adequate aircraft would be to deny it what is recognized as an essential part of a modern fleet. Indeed, without suitable aircraft and aircraft carriers our great fleet would not only lack its eyes but would be seriously handicapped and could not develop its full power needed in war. Economies should be effected everywhere possible, but I venture to submit that it would not be economy to cut to the bone in that new arm of naval service which some of the ablest naval experts in the world believe is destined to soon become quite as effectiv as any other part of the fleet, if indeed it may not be found superior in fighting efficincy to other units hitherto deemed to be the most effective parts of a fighting fleet.

Sincerely yours,

JOSEPHUS DANIELS.

Hon. CARROLL S. PAGE.
Chairman, Committee on Naval Affairs,
United States Senate, Washington, D. C.

AVIATION—NAVY.

For aviation, to be expended under the direction of the Secretary of the Navy, for procuring, producing, constructing, operating, preserving, storing, and handling aircraft, establishment and maintenance of aircraft stations for experimental work in development of aviation for naval purposes, and for the purchase or manufacture and issue of special clothing, wearing apparel, and similar equipment for aviation purposes, $22,259,590, to be expended as follows: Necessary heavier-than-air craft, at a total cost not to exceed $4,906,500; necessary lighter-than-air craft, at a total cost not to exceed $670,000; necessary equipment for such aircraft, at a total cost not to exceed $988,470; for aircraft and accessories in course of construction or manufacture on June 30, 1921, $1,440,000; for new construction, buildings, and improvements at air stations, at a total cost not to exceed $3,114,000 (as follows: Cape May, $25,000; Coco Solo, $402,000; Hampton Roads, $78,000; Lakehurst, $460,000; Pearl Harbor, $210,000; Pensacola, $130,000; San Diego, $164,000; Dutch Flats, $75,000; Quantico, $50,000; Great Lakes, $20,000; Guam, $50,000); for navigational, photographic, and aerological equipment, including repairs thereto, for use with aircraft built or building on June 30, 1921, $49,250; for maintenance, repair, and operation of aircraft factory, helium plant, air stations, fleet activities, testing laboratories, and for overhauling planes, $7,286,120; for continuing experiments and development work on all types of aircraft, $3,405,000; for drafting, clerical, inspection, and messenger service for aircraft stations, $400,000; and any moneys appropriated for aviation, except moneys appropriated for heavier-than-air and lighter-than-air craft, and for new construction, buildings, and improvements at air stations shall be disbursed and accounted for in accordance with existing law, as "Aviation," and for that purpose shall constitute one fund: *Provided*, That no part of this appropriation shall be expended for maintenance of more than six heavier-than-air stations on the coast of the continental United States: *Provided further*, That no part of this appropriation shall be used for the construction of a factory for the manufacture of airplanes: *Provided further*, That all funds appropriated for the fiscal year 1922 for the purchase and construction of aircraft and for new construction of stations and buildings shall be available until expended.

AIRCRAFT CARRIERS.

Referring to the naval appropriation bill, H. R. 15975, as passed by the House on February 14, 1921:

Page 45, after line 15, add the following:

"Increase of the Navy: The construction of two airplane carriers is hereby authorized, at a cost not to exceed $24,600,000 for each vessel for hull and machinery, to be available until expended."

Page 45, line 16, insert, between the words "heretofore" and "authorize," the word "herein."

Page 45, line 17, change amount "$53,000,000" to "$70,000,000."

Page 45, line 23, change amount "$33,000,000" to "$35,000,000."

Page 46, line 2, change amount "$90,000,000" to "$109,000,000."

Page 46, line 5, after words "contracted for," add the words "except for the aircraft carriers herein authorized."

FEBRUARY 18, 1921.

MY DEAR MR. CHAIRMAN: During the last session of Congress the sum of $2,000,000 was made available for the erection of a rigid hangar on the west coast of the United States. The Navy has gone to great lengths in searching for and deciding upon a site for this structure. A committee of Congress has recommended a location, and I have to urge upon you the importance of procuring a suitable site at an early date, in order that the sum appropriated for the construction of the building may be utilized.

I have to recommend that the following clause covering this matter be inserted in the appropriation bill:

"That the Secretary of the Navy be, and he is hereby, authorized to accept, free of cost to the United States, a tract of land containing twenty-five acres, more or less, upon which to erect a rigid hangar on the west coast of the United States: *Provided further*, That the Secretary of the Navy, in his discretion, is authorized to purchase a tract of land of 800 acres, more or less,

adjacent to said twenty-five acres, for the purposes of a lighter-than-air station on the west coast of the United States. For the purchase of such land the sum of $80,000, or as much thereof as may be necessary, is authorized to be expended from funds already appropriated for the purposes of naval aviation."

Very truly, yours,

JOSEPHUS DANIELS.

Hon. C. S. PAGE,
Chairman Naval Affairs Committee,
United States Senate, Washington, D. C.

BUREAU OF ORDNANCE.

STATEMENT OF REAR ADMIRAL CHARLES B. McVAY, JR.

The CHAIRMAN. Admiral, we will be glad to hear what you have to say as to the ordnance features of the bill.

Admiral McVAY. Mr. Chairman, in order that what I have to say may have a little more weight than it appears it did have before the other committee, I would like to inform you that in the Bureau of Ordnance there are 14 officers, 12 of whom are chiefs of sections and the assistant chief of the bureau and myself. Of those 14 officers, who have those positions, every one has served afloat during the war, and 12 of the 14 served abroad. Each one has been identified with ordnance for a number of years and all of those who are young enough to have been able to take postgraduate courses have taken them.

Those officers are particularly well qualified to take advantage of the lessons learned from the war. Most of them saw all of these various materials used during the war. We have no record of any ordnance material which is not equal or superior to any material made by a foreign country, and yet we have not any ordnance material which could not be improved in some manner, and, I think, without exception, the tests that we have conducted have been brought to the point where we are now using those lessons practically, and I do not mean to say that we are going to do this or that, but that we are actually doing it.

As you know all of the material for new vessels is covered by the appropriation for armor and armament. The general appropriation under which all material for old ships or improving material on hand and for running all the ordnance stations—of which there are about 35—comes under the appropriation for ordnance and ordnance stores. The Bureau of Ordnance, which, as you know, is different from the other bureaus of the departments, not only designs material, but manufactures it, and we run a great many manufacturing plants. We now make all of our powder; we make practically all of our torpedoes; we make a large percentage of our guns; we are making our projectiles, and, I might say, we are making projectiles of a character such that I do not know of any place where they are made better. As a matter of fact, it is a general manufacturing concern in addition to carrying on design work, and I assure you that it is fully up to date.

The various sections submitted to me a request for material which totaled $26,000,000, and I went over that and decided that in view of the known desire for economy, to limit the amounts they had asked

for to that appropriated last year. I cut that myself to $17,500,000, which was what was given last year, and all of which will be used.

The Appropriations Committee cut that to $14,000,000. Notwithstanding that the board of bureau chiefs, presided over by the Chief of Operations, permitted the $17,500,000 to go through exactly as asked for. Yesterday the Secretary said he thought under the conditions and after listening to the members of the House Naval Committee—and to whom the rest of us listened, too—he thought the $14,000,000 should stand, but this morning I told him of some changes I was making in the shell, and he authorized me to say that he believes that this should be increased to $15,000,000. I think that the amount asked for originally—that is, $17,500,000—should be allowed, in order to carry out all of the work.

Senator SWANSON. What work is cut off now to reduce it to $14,000,000?

Admiral MCVAY. The $14,000,000 will carry on the routine work and permit me to put modern power-controlled instruments on a few of the destroyers and battleships, but it will slow down the other work—the other improvements.

Mr. Chairman, I realize the necessity for economy, and I want to play the game, and I think I can get along with $15,000,000.

Senator SWANSON. What do you want that other million for? Do you want it for experimental purposes?

Admiral MCVAY. No, sir. I will come to that later. It is actually a manufacturing proposition. There were some words eliminated on page 18, as follows:

Provided, That quarterly reports on all gasoline passenger and freight automobiles shall be made on form No. 124, and one copy of each report shall be filed in the Bureau of Yards and Docks.

That went out on a point of order. So far as I am concerned, that point of order may stand. It would serve no useful purpose that I see.

Senator HALE. What is the point about it?

Admiral MCVAY. I do not know. Mr. Britten had it put in last year and had it taken out this year on a point of order.

The next thing is "Experiments, Bureau of Ordnance."

The CHAIRMAN. How about the item for smokeless powder; is that all right?

Admiral MCVAY. That is all right. There is nothing else under the Bureau of Ordnance that was put out under a point of order.

With regard to experiments, Bureau of Ordnance, I asked for $500,000 under experiments. The Secretary of the Navy cut it down to what it was last year, $200,000. The House raised it to $250,000, and I believe it is the only amount that was raised by the House. I can use the $500,000 very profitably.

Senator KEYES. The House appropriated $50,000 more than was estimated?

Admiral MCVAY. More than was approved by the department, but the committee said they were heartily in favor of experiments. Of course, we have to do a great deal of it and it is very expensive. I spent over a thousand dollars just to get this one shell back, the projectile I was telling you about. It cost a thousand dollars to dig that out.

Senator HALE. Was it their idea that this $50,000 would enable you to carry on the experiment?

Admiral MCVAY. Some of them; yes, sir.

Senator HALE. Of course, it would not in any way be adequate for what you want?

Admiral MCVAY. No, sir. What I was speaking about before was production, this being a new thing, testing, and all sort of thing. We could use $500,000, and I would be glad to get it.

Senator KEYES. What do you suppose the House would say to us if we increased it when they had already increased it over the request?

Admiral MCVAY. If they meant what they told me, I think they would be glad. If they meant what they put down here, I think they would not be pleased. But we may be able to get along with this $250,000. So long as you do not change the wording of the bill it does not make any difference to me, because I asked them to permit me to employ technical people under it—experts. That was not put in, so it might as well stay at $250,000. But if this committee would put in a proviso that this money may be used for the employment of technicists, then I would like to have it increased to $500,000.

Senator KEYES. Unless they put in that amendment, you are satisfied?

Admiral MCVAY. It would not do any good, because $250,000 covers material. I would like to employ those people, because we are behind in our work. When we go before the General Board it demands a certain thing on a new ship, and we have to lay work aside in order to get at the new drafting work.

The CHAIRMAN. That is for the employment of——

Admiral MCVAY. Technical assistants. I have five of them now, all I can get, working on a fuse; five people from commercial life trying to get it and other things, and I am held up.

The CHAIRMAN. If you can employ them under the existing law why would you need any additional express authority?

Admiral MCVAY. Because I would employ them in connection with experiments.

The CHAIRMAN. Have you not authority to do that under existing law if you had the money?

Admiral MCVAY. No, sir; because it is limited, if you will notice on line 8, of page 18:

"That the sum to be paid out of this appropriation under the direction of the Secretary of the Navy for chemists, drafting, inspection, watchmen, and messenger service in navy yard, naval stations, naval ordnance plants, and naval ammunition depots," etc., shall not exceed $2,000,000.

In other words, it is limited.

The CHAIRMAN. But that does not include necessarily technical ordnance men?

Admiral MCVAY. Under the legislative bill there is a limitation of the amount that can be spent in the District of Columbia: that is, to be spent by the Navy Department.

The CHAIRMAN. That is under the legislative bill; that has not passed yet.

Admiral MCVAY. But it has been in every year in the legislative, executive, and judicial bill.

The CHAIRMAN. Oh, I thought you meant the naval legislative bill.

Admiral MCVAY. No, sir; the general bill.

Now, Mr. Chairman, there is another thing here with regard to a word on line 9, of page 18. Within that limitation of $2,000,000 is the word "watchmen." I would like to have that stricken out because if there is an emergency and the marines have to be drawn from the stations and sent abroad, or anywhere else, it leaves the stations without any guards, and I would not be able to employ them if that word is in there because the amount to be expended is limited to $2,000,000. I think it is a rather dangerous thing to have in there.

Senator SWANSON. How does leaving "watchmen" in there affect it?

Admiral MCVAY. It places them within this limitation.

Senator SWANSON. If you leave it out you will not have the right to employ them at all.

Admiral MCVAY. Yes, sir; I could employ them under general appropriations.

Senator SWANSON. All of these limitations were put in years ago. They got so that they would let the appointments roll up and put them in sometimes 30 days before election or 60 days before election, and we politicians were worried almost to death.

Admiral MCVAY. You may rest assured I am not going to pay money for a watchman when I can buy something else with it that we need more.

Senator SWANSON. That was the reason those limitations were put in some years ago.

Admiral MCVAY. Yes; I know why, and incidentally I spoke to the Secretary about that and he said there was no use taking them out. But I talked it over with Gen. Lejeune, and he says if the marine force is reduced he will give us as many marines as he can spare.

Senator SWANSON. I know that trouble has arisen in the past on account of this being in there.

Admiral MCVAY. There was a time at the outbreak of the war, I think, when there was a good deal of trouble about it. You raised the appropriation.

Senator SWANSON. We are trying to reduce the appropriations.

Admiral MCVAY. But by not increasing the appropriations you are apt to reduce the marines and then we would not have anybody. I would like to have that come out. It would not add any more money to the appropriation. It is simply the elimination of a word.

Mr. Chairman, I have nothing else with respect to ordnance except "Increase of the Navy, armor, and armament."

The CHAIRMAN. Is there anything in the bill as it is on the House calendar, providing legislation for the Navy, that you want to call to the attention of this committee, or have you examined it?

Admiral MCVAY. Yes, sir; I have examined it; I have nothing. As I have said there is nothing that is liable to come out on a point of order.

There is only one thing that I have urged for a number of years and that is that the assistant chiefs of the bureaus ought to get more pay. I was an assistant chief of bureau any everybody thought I got extra pay, but I did not get any, because the controller said that

what everybody thought was pay was allowance and that is the way they are now.

The CHAIRMAN. I am speaking with regard to this legislative naval bill—whether there is anything which ought to be added to it or whether there is any particular part of it you are interested in having enacted.

Admiral MCVAY. In this bill under discussion?

The CHAIRMAN. The legislative bill—H. R. 15975—perhaps you have not examined it?

Admiral MCVAY. Yes, sir; I have.

The CHAIRMAN. Is there any part of it that it is important to pass or not to pass?

Admiral MCVAY. There is one important part there—very important—where there is a limitation of the amount to be expended in Washington for——

The CHAIRMAN. You are thinking about a different bill.

Admiral MCVAY. Oh, I understand now. No, sir; there is nothing in here.

The CHAIRMAN. I was going to say if you have not already examined it, I think you should.

Admiral MCVAY. There is nothing in here that strikes us. I have nothing else but "Increase of the Navy, armor and armament" in this bill. Do you want to take that up now?

The CHAIRMAN. Yes; we would like to take that up. What page is that on?

Admiral MCVAY. It is the last page, 45. Under "Increase of the Navy, armor and armanent," is that part of new construction in which the Bureau of Ordnance is interested. It starts on line 14, which is the part that is of interest to the Bureau of Construction and Repair and Bureau of Engineering; we all three are together on that. The request was for $184,000,000 required this year for the 1916 building program as already laid down.

The CHAIRMAN. That is for all three of those items?

Admiral MCVAY. Yes, sir. Beginning on line 14 is "Increase of the Navy, construction and machinery"; then "Increase of the Navy, torpedo boats"; and "Increase of the Navy, armor, and armament," the estimated appropriation for the three being $184,000,000.

Ninety million dollars was allowed by the House. We asked, as I have said, for the $184,000,000, that is for the three material bureaus. The chairman of the House Appropriations Committee figured on a basis of $100,000,000 under the new construction for the three bureaus. Nobody in the Navy Department and nobody in any bureau as far as I know, agreed that the work could continue logically and reasonably for that amount. The other bureaus, of course, could speak for themselves.

The CHAIRMAN. Let us hear from you particularly as to the item that refers to your bureau.

Admiral MCVAY. That is what I was going to do. I spoke of Admirals Taylor and Griffin about this——

The CHAIRMAN. I see the department estimated $55,000,000 and the House allowed $33,000,000.

Admiral MCVAY. Yes, sir; our estimate was $55,000,000, which I thought was necessary to carry on the work properly and within a

reasonable cost. If $100,000,000 had been granted, which was not, that would be $37,000,000 instead of $33,000,000.

Senator HALE. One minute, while you are on that. The estimates here only add up to $174,000,000. How do you make it $184,000,000?

Admiral MCVAY. Because they have cut out $10,000,000 that I asked for ammunition for these new ships.

Senator HALE. That is not in the bill at all.

Admiral MCVAY. Yes, sir: it is to be found at the top of page 46.

The CHAIRMAN. What was that $10,000,000 for?

Admiral MCVAY. Ammunition for these ships already authorized.

Senator HALE. What have you that is available for this purpose?

Admiral MCVAY. We have a certain amount available under ammunition, and we can proceed with the production of it, but not so rapidly as we could if we had gotten this money.

Senator SWANSON. Have you a right good supply of ammunition now left over from the war?

Admiral MCVAY. Not of this type; no, sir: this ammunition is for the 16-inch guns for the new construction.

Senator SWANSON. What is the difference in the ammunition for a 16-inch gun and, say, a 14 or 12 inch gun?

The CHAIRMAN. Two inches.

Admiral MCVAY. It is just as the chairman says—2 inches. There is a difference in the size of the powder.

Senator SWANSON. What is the difference in the size of powder—in the grain of the powder?

Admiral MCVAY. Yes, sir; in the openings you have to have. In each grain of powder there is an opening, the number and size of which depends on the rapidity of burning; you have to have a certain rapidity of burning, or rather to limit rapidity of burning in order that you will not have it burn too quickly and get up a high pressure in the guns.

Senator SWANSON. Is that in connection with the fuse?

Admiral MCVAY. No, sir; that is only in connection with limiting the pressure in the gun so the gun will be safe. If you take rifle powder and try to fire it——

Senator SWANSON. I mean when you make powder for 12 or 14 inch or 16 inch guns, is there right much difference in the constitution of that powder?

Admiral MCVAY. No, sir; there is no difference in the constitution of the powder, but there is a difference in the size of the grains; that is, the length and diameter, and in the number of longitudinal holes.

Senator SWANSON. That is the amount of powder you put in and the different phases of it, but do you mean there is a difference in the size of powder for the 12-inch gun?

Admiral MCVAY. Yes, sir; each gun must have a separate grain.

The CHAIRMAN. And it is for the 16-inch guns that you are talking about that you wanted to get the powder for?

Admiral MCVAY. No, sir; that we want the projectiles for. That has been eliminated from the bill.

Senator SWANSON. That $10,000,000 covered the projectiles; I understand about that. But you said ammunition.

Admiral MCVAY. That is part of the ammunition; the rest of it would be powder. But, as I have said, I am quite willing for that to go out, because we have some money left over, a balance, which they

permitted us to have during the coming year, and I would rather have that ammunition go on this $33,000,000. We were allowed $45,000,000 last year. We have spent it all practically, and as we have now reached the point where the expenditures are about what they will be—that is, four and one-half million dollars a month—we really need the $45,000,000.

Senator SWANSON. All of this money is for projectiles manufactured by the Government itself, is it not?

Admiral MCVAY. No, sir; very little of it.

Senator SWANSON. There is very little manufactured in your own shops?

Admiral MCVAY. Yes, sir.

Senator SWANSON. Where do you get them from mostly?

Admiral MCVAY. Well, as to the projectiles, the Washington Steel & Ordnance Co. has made a good many, and it is just finishing. The Crucible Steel Co. has made a good many, and it is just finishing; the Midvale Steel Co. made a good many, and when I say a good many, I mean three or four thousand projectiles each, each one of them, the contract is completed. The only outstanding contract is one with a concern in Dayton, Ohio. It has a contract for 3,500, and the other is ordered with the Naval Ordnance Branch at South Charleston. We were expecting to make about 5,000 of them there. But it is a small proportion. That is all in Government plants and is a very small proportion of the amount made. The rest of them are made by commercial concerns. Now, after talking it over with Admiral Taylor, who is going to ask for an increase under naval construction and machinery, in order to keep pace with him I would like to have this $33,000,000 raised to $40,000,000.

Senator HALE. Would you take it off of other things? If we are only going to give you $90,000,000, where would you take it off?

Admiral MCVAY. I would not take it off anywhere. I thought of economy, too, and instead of asking for the whole $45,000,000 and $10,000,000 for ammunition I thought to sacrifice it to the extent of $15,000,000.

Senator SWANSON. This runs from the 1st of July, 1922. Now, what ships will be completed for which these projectiles and ammunition must be supplied each year by that time?

Admiral MCVAY. I have ammunition on hand now for those ships which will be completed next year; that is, the *Maryland* and *California*. But, Senator, you know we have to anticipate. You see this covers not only projectiles but armor. We have to anticipate the delivery of the ships. The contractor for the ships will call, for instance, a certain part of the barbette or turret at a certain time, and we have to meet that requirement. In fact, we have to anticipate the probable time of delivery.

Senator HALE. As I understand, you would not need ammunition or projectiles. I understood you to say you have ammunition and projectiles for those two ships?

Admiral MCVAY. Yes, sir; I have it for them.

Senator HALE. What you want it for is armor?

Admiral MCVAY. Armor, fire-control instruments, torpedoes, and different things like that.

Senator HALE. What armor under contract have you for those two ships and when will delivery be made for the ships to be constructed by the 1st of July, 1922?

Admiral MCVAY. That is all delivered for the *Maryland* and *California*, I think.

The CHAIRMAN. I think that is all, Admiral.

Admiral MCVAY. Mr. Chairman, there is just one more matter. Admiral Coontz was talking about destroyers in reserve. He asked me to mention the fact that when you put the destroyers in reserve, if you put them out of commission, you land all the ammunition and all the torpedoes. When you lay them up in reserve with a small crew they have only part of their torpedoes on board; the rest are landed. In order to use these vessels—they are only made for the purpose of firing torpedoes—you must have on board of them men who know how to look out for torpedoes, and that you have not to-day, and you won't get it until after we can educate the men. They are being educated as fast as possible at the torpedo station in Newport from the Atlantic Fleet and at the torpedo station at Keyport from the Pacific Fleet, but we have to be very sure of the men who can handle torpedoes, and that is one great reason for having these vessels in reserve instead of having them in ordinary with nobody aboard. It is a highly important thing. Even the active destroyers, except those which are abroad, generally carry only one-half of their torpedo allowance.

STATEMENT OF ADMIRAL ROBERT E. COONTZ, UNITED STATES NAVY.

The CHAIRMAN. Admiral Coontz, there is a provision here under the heading limiting the appropriation to ships that are now being constructed, or have been heretofore contracted for, that would eliminate 12 torpedo destroyers and 6 fleet submarines. Senator Gerry called attention to the very small number of submarines that we have or that are included in the program. I notice in the statement I got from Admiral Badger that the total of those that are authorized, including what we have in hand, make a total of 12.

Admiral COONTZ. Yes, sir.

The CHAIRMAN. That is, if the respective programs of the several nations are completed in 1927, we would only have 12 fleet submarines; Great Britain will have 35 and Japan will have 56. Now, I would like to get a little more light as to the advisability of such a limitation as that in the bill, or the abandoning of the authority which has been created by Congress to construct these additional 6 fleet submarines, which, if constructed, will only give us 12 altogether, as compared to 35 for Great Britain and 56 for Japan.

Admiral COONTZ. The suggestion regarding that is this, that we do not believe the destroyers should be constructed. Personally, I believe a transport ought to be built. We have been for a year and a half trying to get something out of the Army or the Shipping Board, without success.

The contracts have been advertised for and bids have been in for a long time, but we have not accepted any of them.

Of the 12 fleet submarines, 3 are being built at the Portsmouth Navy Yard and 3 under contract. The other six, of course, we need.

We have cut them out just as we cut the destroyers and transport. because the airplane carriers are the greatest need of the day, and we thought if that was the only way we could get them, we would gladly sacrifice that fifty-odd million dollars until the times became better to complete the submarines.

Senator SWANSON. What is to be the radius of those fleet submarines? How far will they go?

Admiral COONTZ. Five thousand miles.

Senator SWANSON. What is the radius of the largest one we have?

Admiral COONTZ. About five thousand.

The CHAIRMAN. Have we any fleet submarines at all now?

Admiral COONTZ. Yes; we have the T–1. T–2, and T–3.

The CHAIRMAN. And their rating, as I understand, is 5,000 miles?

Admiral COONTZ. Yes, sir.

Senator HALE. Are they fleet submarines?

Admiral COONTZ. You know we make those big submarines so fast that we change the title. Those older one would be fleet submarines. Later on there will be larger ones yet, but we feel that if necessary we could forego them on the economic basis. In time, of course, we will need them, there is no doubt about that if the Navy is to be properly kept up.

Senator SWANSON. What was the experience during the war as to the advisability of a whole lot of fleet submarines? Were they very effective, the submarines operating from a base?

Admiral COONTZ. Yes, sir. I think the need of them was shown during the war, both for ability to go far from base, their stability and ability. I think that one out of each lot ought to be big enough to have quarters for the man in charge, so he could run everything from navigation down.

I think that is a bad clause to be in the bill, but as I say, we were driven to the wall on it and that was the only way to do it.

The CHAIRMAN. What is the limit of cost of the big submarines under this program?

Admiral COONTZ. The limit of cost on these is two and a half million, is it not, Admiral Taylor?

Admiral TAYLOR. It is not fixed.

The CHAIRMAN. What do you estimate it, about?

Admiral TAYLOR. Four million dollars apiece.

Senator HALE. Four million apiece?

Admiral TAYLOR. That was the rating to the department, but it has not been accepted as yet, because the bids were too high.

Senator GERRY. What would that appropriation mean for this year; how much would the appropriation have to be for the first year if they were constructed?

Admiral COONTZ. For the six submarines, it would be about one-third the first year.

The CHAIRMAN. About $8,000,000?

Admiral COONTZ. Yes, sir.

Senator SWANSON. With your present submarines and destroyers, do you look on these fleet submarines as very urgent now?

Admiral COONTZ. Well, we are pretty well fixed in destroyers, and in the other submarines, and I do not feel that under the circumstances it is necessary to put it in this year's bill.

The CHAIRMAN. We will now turn to the Bureau of Yards and Docks.

Senator GERRY. Mr. Chairman, I would like to call attention to some amendments that will have to be put in on page 45 if you decide to build two airplane carriers. I will submit them to the chairman.

The CHAIRMAN. We will take these up when we come to act on the bill.

Senator GERRY. I simply wanted to call them to your attention. I did not know whether you would desire to ask any questions about them of the different heads of departments now before you.

The CHAIRMAN. Well, as long as you are here, we will hear anything that you have to say about it. As to the matter of airplane carriers, we have had a hearing on that. What about the next amendment in line 16? Do they all relate to the same items—all these amendments? Or do they just refer to two airplane carriers?

Senator GERRY. They refer to two airplane carriers. I simply thought it might be convenient for the committee to have them now.

Senator HALE. That is simply a division of the appropriation?

Senator GERRY. It is simply a division of the appropriation; yes, sir.

The CHAIRMAN. We will take them up later. The committee will now hear from Admiral Parks, Chief of the Bureau of Yards and Docks.

STATEMENT OF REAR ADMIRAL CHARLES W. PARKS, CHIEF BUREAU OF YARDS AND DOCKS, NAVY DEPARTMENT.

The CHAIRMAN. Admiral, we would like to hear your observations with respect to Yards and Docks.

Admiral PARKS. Mr. Chairman, the first item is on pages 19 and 20, under the caption "Maintenance, Bureau of Yards and Docks." That is an item that has been carried for a great many years under that title, but in this year's bill, now before you, an addition has been made of what before has been carried under "Repairs and Preservation."

The CHAIRMAN. Where is that item?

Admiral PARKS. That is beginning on line 7 on page 19.

The CHAIRMAN. Do you mean the entire item of "Maintenance, Bureau of Yards and Docks," is a new item?

Admiral PARKS. No, sir; it has been amplified by adding repairs and preservation to it and carrying no separate appropriation for repairs and preservation.

Senator HALE. When was that done?

Admiral PARKS. That was done by the Appropriations Committee this year.

Senator HALE. This year?

Admiral PARKS. Yes, sir.

Senator HALE. Where is the item?

Admiral PARKS. Lines 24 and 25 on page 19.

Senator BALL. While it is apparently an increase of $1,000,000, yet when you take the two together it is a saving of two millions?

Admiral PARKS. It is a decrease of $2,000,000; yes, sir.

The CHAIRMAN. I want to understand exactly what Admiral Parks is referring to.

Admiral PARKS. I am referring to page 19, line 24, "and for repairs and preservation at navy yards, fuel depots, fuel plants, and stations."

Those are the new words in this item.

The CHAIRMAN. Where do you want to put those in?

Admiral PARKS. They are already in lines 24 and 25.

The CHAIRMAN. What do you want to add them again for if they are already in?

Admiral PARKS. The reason I referred to them is because they have been carried separately in bills and acts prior to this year, and separate appropriation has been made for that purpose.

Senator BALL. You want it to stay as it is now, do you?

Admiral PARKS. I do not object to its staying as it is now. It will reduce accounting; it reduces the expense of operation, but the amount that is appropriated should take that combination into consideration. The $7,500,000 given on line 1 of page 20 is not sufficient to cover the work that should be charged to that appropriation.

Senator HALE. Is it not more than you got last year?

Admiral PARKS. No, sir; last year we got nine million and a half for those two appropriations.

Senator HALE. Then this estimate here is not correct?

Admiral PARKS. No; the estimate is for the maintenance part without repair and preservation.

Senator SWANSON. What is the total you have this year?

Admiral PARKS. Nine and one-half millions. Then in addition to that we found deficiencies necessary of $633,000, making the total estimate for the year's expenditures $10,133,000.

Senator BALL. What are you asking for now?

Admiral PARKS. We ask for nine and one-half millions, that the $7,500,000 be increased to $9,500,000.

Senator HALE. That is really not a fair estimate. It is taking the estimate in the appropriation bill of last year and splitting it.

Admiral PARKS. That is all. It does not show without explanation what it means.

The CHAIRMAN. What was the amount appropriated last year for the item for repair and preservation at navy yards, fuel depots, fuel plants, and stations?

Admiral PARKS. $3,000,000.

The CHAIRMAN. $3,000,000 last year for that and $6,000,000 for this?

Senator SWANSON. It is $2,000,000 less than it was last year; that is right, is it?

Admiral PARKS. Yes, sir.

Senator HALE. And you want it what it was last year?

Admiral PARKS. Yes, sir.

Senator HALE. And at that, you had a deficit?

Admiral PARKS. Yes, sir; things were charged to general expenses that ought to have been charged to this appropriation.

Senator BALL. I understand that of the $9,500,000 you had last year you had about $700,000 or $800,000 deficit?

Admiral PARKS. Yes, sir; and conditions are such at certain places that repairs should be made even to the extent of creating an addi-

tional deficit. But they have been delayed until the next funds become available.

Now, aside from desiring to change from $7,500,000 to $9,500,000, there is an item on page 20, lines 10 to 13, as follows:

Provided further, That the expenditures from appropriations contained in this act for the maintenance, operation, and repair of motor-propelled passenger-carrying vehicles, including the compensation of operators, shall not exceed $150,000.

By stating the "act," this limitation covers not only the automobiles operated under the Bureau of Yards and Docks, but those under Medicine and Surgery and Aviation and Ordnance in the Navy directly, and those operated by the Marine Corps.

Senator HALE. How does this include them?

Admiral PARKS. It means that under all of these separate appropriations the limit must be $150,000. It makes no division between the several activities.

Senator BALL. It is stated here that you have 375 passenger-carrying automobiles in the service?

Admiral PARKS. Yes, sir. Now, that $150,000 would not be enough to take care of over 33⅓ per cent of the passenger automobiles that we operate under Yards and Docks. We give the figures for those automobiles, amounting to $453,000. We did not have the figures for the Ordnance and Medicine and Surgery and Aviation and Marine Corps. Those would have to be added to the $453,000 to find the total cost.

Now, the Secretary of the Navy has said that he is not willing to ask for an increase in that limit, and he is willing to have a modification on page 20, line 12, after the word "vehicles," to insert "except those used by the Marine Corps outside of the continental limits of the United States." As the limit now stands, the operations of the Marine Corps might be very materially restricted in expeditionary forces, and in some other matters that Gen. Lejeune will doubtless mention.

Senator BALL. You want to add after the word "vehicles" what?

Admiral PARKS. The words "except those used by the Marine Corps outside of the continental limits of the United States.

Senator HALE. Why does not this last clause in this section take care of the matter of automobiles, Admiral?

Admiral PARKS. The bill reads:

That during the fiscal year ending June 30, 1922, operators of motor vehicles who were carried on the pay rolls of other bureaus prior to July 1, 1920, shall be continued to be so carried where their employment shall be found necessary.

That is simply the designation of the appropriation that shall carry the cost of operators. It does not help the limit at all of what can be expended out of the $150,000.

Senator HALE. You mean then that you would have to come within $150,000?

Admiral PARKS. Yes, sir.

Admiral COONTZ. It is a drastic law that practically takes them all out; it does not allow anything else. It reduces the operation down to almost nil.

The CHAIRMAN. What is the intention, to go back to horse-drawn vehicles?

Admiral COONTZ. To get them down to the absolutely necessary use.

Senator SWANSON. How many are there in your department?

Admiral PARKS. Three hundred and seventy-five when we made up the list in November.

Senator SWANSON. In Yards and Docks. What did it cost you to operate them?

Admiral PARKS. $453,000.

Senator SWANSON. A year?

Admiral PARKS. Last year.

Senator SWANSON. Possibly they intended to apply this not to this "act" but to this provision. They possibly meant to limit this to you. It says, "this act," but if they were to limit it under this provision, it would not give you more than about one-half of what you have now.

Admiral PARKS. It would give us about one-half.

Senator SWANSON. I think they intended to put in there "this provision."

Senator HALE. No; they did not.

Senator SWANSON. That this "act" would cover this whole appropriation?

Admiral PARKS. It covers the whole thing.

Senator HALE. No; such a clause shows that they were particularly talking about other bureaus.

Admiral COONTZ. It is very drastic. Personally, I think it is too drastic to cut down that amount.

Senator HALE. How do you think it would be to read:

"That expenditures from appropriations contained in this provision for the maintenance, operation, and repair of motor-propelled passenger-carrying vehicles, including the compensation of operators, shall not exceed $150,000"?

Admiral PARKS. That would be all right, but the particular thing that is being injured is the marine operations.

Senator HALE. Do you expend $150,000 in your particular operations?

Admiral PARKS. $453,000.

Senator HALE. Could you cut it down to $150,000?

Admiral PARKS. We would have to cut it down.

The CHAIRMAN. Would it help some to make that $350,000 instead of $150,000?

Admiral PARKS. It would help a great deal. That would do for the whole establishment.

Admiral COONTZ. If you had to cut it down, you ought not to cut it down all at once. It would cripple us in many ways.

The CHAIRMAN. What is the next matter?

Admiral PARKS. The next item is on page 20, line 23, changing the period to a semicolon and inserting thereafter the following: "Dredging, to continue, $100,000; in all, $140,000."

As to this dredging, I will say by way of explanation, it is because the *Tennessee* has been aground and additional dredging is needed. That estimate was submitted by the department originally, but at the hearings before the House committee, in view of the large reduction that had to be made in the estimates, I thought that the dredging might go over a year, and right after the hearing I found that the

Tennessee had been aground and that the dredging was necessary now. So it ought to be put back in the bill.

The CHAIRMAN. What is the amount estimated for dredging?

Admiral PARKS. One hundred thousand dollars. The yard's estimate is $200,000, but $100,000 is enough for that now.

On page 21, line 21, after the semicolon, insert the following: "Extension of Pier No. 4"——

Senator HALE. Pardon me. If, as you say, $100,000 is enough, why was $200,000 estimated?

Admiral PARKS. I think they estimated entirely too high a rate in the yard.

Senator HALE. Who made the estimate?

Admiral PARKS. That is the yard estimate.

Senator HALE. Don't you go by the yard's estimate?

Admiral PARKS. Yes; but I know what there is there, and $100,000 ought to give us that amount of dredging at the present prices, and prices, perhaps, are coming down, but it ought to give the dredging we need at present prices. I have an idea that the estimate was put in with the idea of having it cut in two.

Senator HALE. Is that the practice in making these estimates?

Admiral PARKS. It is not the practice on public works' estimates.

Senator HALE. Do you think it would be a safe way for us to go about it by cutting all the estimates?

Admiral PARKS. That has been claimed, but it is not true of the public works' estimates. Whatever it may be in other cases I can not say.

To continue: "Extension of Pier No. 4, $530,000; rifle range for small arms, including purchase of land, $93,000; also strike out the figures $1,405,000 and insert the figures $2,028,000."

Those are items at Puget Sound. The first one is necessary on account of the large part of the fleet now being in the Pacific, and there is a lack of mooring facilities at the yards or on the coast.

Admiral COONTZ. I would like to call attention to the fact that Senator Ball and Senator Keyes saw that very dock and walked down on it. They landed there at the end of the yard and saw all that congestion—hundreds of ships there and no place to put them. I think those two gentlemen are familiar with that situation.

Admiral PARKS. The total berthing space at that yard is 5,910 feet.

Senator BALL. Does this provide for extending the sea wall up?

Admiral PARKS. No; that rebuilds the Pier No. 4, which you know is in bad condition.

The CHAIRMAN. How does that berthing space compare with other yards?

Admiral PARKS. Mare Island has 11,100 feet of berthing space, but I was going to add that the net length of ship based at Bremerton is 26,554 feet, about five times as much net length of ships as berthing space available.

So it is rather important to increase the berthing space at that yard as soon as it can be done.

The other item, $93,000, for rifle camps, is with a view of purchasing 320 acres of land a few miles from the torpedo station at Keyport. The land proposed is comparatively flat and surrounded

by high land and is in such shape that 185 targets could be installed and be useful at the same time.

The estimate is for the purchase of land, $30,000, and preparation of the ranges, $63,000, in view of part of the fleet being based at Bremerton.

Senator BALL. What does that make your total there?

Admiral PARKS. $2,028,000. It is desirable to have a sufficient range within easy access of the naval station at Puget Sound.

The CHAIRMAN. I would like to interpolate a question there of Admiral Coontz, who has been commandant of this yard, as to why a rifle range is needed at that point?

Admiral COONTZ. We have no rifle range on the Pacific coast except a small one of the marines, it being 11 miles south of Bremerton. It is very small and impossible to get to in the wintertime on account of the mud. For many years we searched for a proper place for a rifle range out there and finally found this place back of the hills, about five years ago, after looking at some 30 sites. Battleships can anchor within about 1 mile of it. You simply have to go over the hill. We happened to find this level place in between the hills. We had no trouble with the inhabitants. At that time I think we got an option on it for about $22,000, but land has gone up since. We have been able to use that for quite a time free.

The CHAIRMAN. What is the advantage to the fleet of having a rifle range accessible to it?

Admiral COONTZ. Training in the use of small arms is essential for the Navy, both in developing skill in rifle firing in connection with possible operations ashore and also in stimulating those qualities of precision and care that are so important in other activities on board ship, particularly in producing good material for the pointers of large guns.

At present it will be noted that there are no adequate Navy facilities for fleet training in small arms on the Pacific coast, where large numbers of men may engage in rifle and pistol practice in the open, and the need for a suitable Navy range in those localities is obvious.

The CHAIRMAN. Outside of this small rifle range of the marines that you speak of, what is the nearest rifle range available to the Navy in the country?

Admiral COONTZ. I do not know of any available to the Navy except that small one at Mare Island, and even that may have been abandoned. Up there we have to borrow from the Army and for awhile we were able to use Camp Lawton. I do not know whether they keep it up. We used this course for many years. As I have said, it was given to us free, but we can no longer encroach upon it.

Senator HALE. How many are there on the east coast—the Atlantic coast?

Admiral COONTZ. On the Altantic coast I should say there are about six or seven very good ones; one near Annapolis—I think they call it Camp Meade.

The CHAIRMAN. Pardon me, I am talking about the Navy.

Admiral COONTZ. Oh, the Navy. Why, I believe we are down to two.

The CHAIRMAN. Are they in active use?

Admiral COONTZ. There are two that we still use: One at Annapolis and the other is—where is that, Admiral Parks?

Admiral PARKS. One at Virginia Beach, I think.

Senator HALE. Are they used all the time for the Navy?

Admiral PARKS. Oh, yes; they are for the Navy and Marine use altogether.

SMALL-ARM RANGES IN COMMISSION.

Small-arm ranges are maintained by the Navy at present at the following places: Naval station, Guantanamo; Naval Academy, Annapolis; navy yard, New York; navy yard, Philadelphia; training station, Great Lakes; navy yard, Mare Island; naval station, Olongapo, P. I.

Of these, only the first two are of sufficient size to be considered as proper ranges and as having facilities suitable for fleet use, except that the range at Olongapo serves fairly well for the present size of the Asiatic Fleet. The ranges at the navy yards mentioned cover only the shorter ranges, and in some cases are under cover, unsuitable for proper training.

The range at Guantanamo is located on property allotted to the Navy within the limits of the naval station, and is the largest and best range in our possession. It comprises ranges up to 1,000 yards, and has about 310 rifle and 105 pistol targets. Its equipment is in fair condition, but lack of funds has prevented proper upkeep during the past year. It is the main training range for the Atlantic Fleet and is used extensively for that purpose and by the marines stationed at Guantanamo or based in that locality from time to time.

The range at Annapolis is primarily for the use of the midshipmen, but is also used by visiting vessels and by the marines near by. It is a smaller range, but is fairly up to date in equipment. It is located across the Severn River from the Naval Academy, and has ranges up to 1,000 yards, and about 100 targets.

No mention is made of Marine Corps ranges.

Senator HALE. I want to know if it is the custom to send sailors to these ranges or whether this is a new idea?

Admiral PARKS. Oh, no, sir; it is an old idea.

Senator BALL. It is questionable whether it is an advantage, I should say.

Admiral COONTZ. It is customary to do it. When we get one on the west coast we utilize it, but of course on this side we have the advantage of Guantanamo. While the Atlantic Fleet is down there they utilize them every hour of the day.

The CHAIRMAN. Have they a good rifle range there?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. What, in your judgment and your familiarity with the yard, is the importance of this extension of Pier No. 4 that Admiral Parks speaks of?

Admiral COONTZ. I consider it of the utmost importance, because we are short there on wharfage. We have the ships there and they have to lie in the stream on account of the small number of wharves. They are continually being moved around by tugs. When this committee was out there there were, I suppose, ships four deep alongside of those wharves, and I think it is a distinct necessity in the line of repairs and in the line of stores.

The CHAIRMAN. What is the next proposition, Admiral Parks?

Admiral PARKS. On page 23, lines 4 and 5, strike out the words "to complete" and insert in lieu thereof the word "toward."

A million dollars has already been appropriated for this training station, which is intended to be the training station of the Pacific coast—and one that was planned to have a capacity of 4,500 men in training and 500 in detention, at an estimated cost of $4,500,000. We have reduced the estimated cost on account of falling labor and

material markets, and it can now be expected that it will cost considerably less than $4,500,000, but it can not be carried out to the extent proposed for $2,000,000. The training station is located on land secured by the citizens of San Diego and presented to the United States for its use.

The CHAIRMAN. Is the $1,000,000 estimated about all you can advantageously spend in one year there?

Admiral PARKS. That is it. We simply want to change the words "to complete" to "toward."

Senator HALE. Is this the first appropriation made for that station?

Admiral PARKS. No, sir; it is the second

Senator HALE. And when the other one is put in will we know we will only need a million to complete it?

Admiral PARKS. No, sir; four and a half million was estimated at that time.

Senator HALE. How much has been spent so far?

Admiral PARKS. Nothing has been spent. I expect to award the contract about the first or second day of March.

Senator HALE. What do you estimate it will cost to complete the proposition?

Admiral PARKS. The probability is it will be somewhere in the neighborhood of three and a half million. They reduced the price.

Senator HALE. Then it could not complete the proposition, possibly?

Admiral PARKS. It can not complete the training station to the extent that it should be. On page 23, after line 6, I have a certain clause to be inserted, if it is required to carry out the recommendations of the joint committee on Pacific coast stations. I will insert the proposed amendments in the record.

The CHAIRMAN. They will be inserted.

(The suggested amendments are here printed in full, as follows:)

On page 23, after line 6, insert the following:

"The Secretary of the Navy is authorized to accept from the city of Alameda, California, free from encumbrances and without cost to the United States Government in excess of $1, a certain tract of land on San Francisco Bay, containing five thousand three hundred and forty acres, more or less, for use as a site for a naval base, being the land described in a certain deed made the 5th day of February, 1920, by and between the city of Alameda and the United States of America. Also to accept free from encumbrances and without cost to the United States Government in excess of $1 certain other land adjoining said tract, being the land lying between the southwesterly boundary line of said tract and the pierhead line in front thereof.

"The Secretary of the Navy is authorized to accept from the city of Los Angeles, California, free from encumbrances and without cost to the United States Government in excess of $1, a certain tract of land in the harbor of Los Angeles, California, containing two hundred and twenty-five acres, more or less, for use as a site for a naval submarine base.

"The Secretary of the Navy is authorized to accept from King County, State of Washington, free from encumbrances and without cost to the United States Government in excess of $1, a certain tract of land containing four hundred acres, more or less, located at Sand Point, on Lake Washington, for use as a site for a naval aviation base.

"The Secretary of the Navy is authorized to acquire one thousand acres, more or less, at or near Camp Kearny, California, for a site for a lighter-than-air avia-

tion station and to pay for the same an average price of not exceeding $100 per acre out of any funds appropriated for aviation purposes.

"Naval air station, Sand Point, Washington: Toward development for heavier-than-air equipment, $600,000; toward grading, filling, and clearing, $200,000; in all, $800,000.

"Naval submarine base, San Pedro, California: Toward development of a submarine base, $1,500,000.

"Naval base, Alameda, California: Toward dredging, excavating, and grading, $1,500,000; toward water-front development, $1,500,000; toward construction of one dry dock, $1,000,000; toward construction of a supply base, $1,000,000; toward construction of destroyer and docking base, $500,000; in all, $5,500,000."

This appropriates for those items if authorizations are enacted.

The CHAIRMAN. At what amount do you estimate that?

Admiral PARKS. For the naval air station, Sand Point, Wash., $800,000; submarine base, San Pedro, Calif., $1,500,000; naval base at Alameda, Calif., $5,500,000.

Senator BALL. Do you think it will be necessary to put in the five and a half million for Alameda at this time?

Admiral PARKS. It is a question as to how much you want to start with at this time. This particular improvement would start with the excavation and grading and the water front. Those have got to be done anyway, and it is a question whether you do not want to make a start on a dry dock in the same bill.

Senator BALL. You provide for $1,500,000 for dredging, excavating, and grading, and $1,000,000 toward the construction of a dry dock; toward the construction of a supply base, $1,000,000; and toward the construction of destroyer and docking base, $500,000. Would it not be better to start only on the dredging and the developing, which would only be $3,000,000?

Admiral PARKS. That was a question. After reading the report of the committee it was thought well to prepare the other three items for the consideration of the committee; but there would not be much done except on the water front and the dredging and filling during the first year.

Senator BALL. I should think $3,000,000 would be all there was any occasion for.

Admiral COONTZ. The department is perfectly willing to that. You asked what it would take for the frontage and we told you, and it is up to your judgment what you would put in.

Senator BALL. I will say that the committee found that the deed was already deposited with the Secretary of the Navy for this land, the moment the department could properly accept it, or the moment the project is accepted.

Admiral COONTZ. The moment you legislate.

Mr. Chairman, you asked me about that hospital ground. I will say that Mr. Kettner, a representative from California is present, and wants to say a word about that.

The CHAIRMAN. We will be glad to hear him.

Senator BALL. Do we legislate for the hospital in the legislative bill?

Admiral PARKS. That item is here, and I was going to suggest that this be incorporated in this bill.

The CHAIRMAN. Let us hear what Mr. Kettner has to say.

STATEMENT OF HON. WILLIAM KETTNER, A REPRESENTATIVE IN CONGRESS FROM SAN DIEGO, CALIF.

Mr. KETTNER. Mr. Chairman, the people of San Diego have always been ready to turn everything over to the Navy. In 1917 when they wanted room for the hospital, we turned over the city park where we held the exposition in 1915. The Navy is still using it. They have some 300 patients there, and when the fleet was divided and the Navy reached the conclusion that they must build a hospital there, we gave them 18 acres of the finest and highest land we had in the park, and we were led to believe that they would proceed to put up buildings immediately so we could use the exposition building. We are making arrangements now to have them every winter as soon as you have accepted the land and have let small contracts toward building the hospital. But there is no provision in the bill in that regard. We passed it in the House; that is we put it in the legislative bill but will never be able to bring it into the floor of the House and I hope you gentlemen will make a provision to finish the hospital so we can use the park, which we would have to do this winter.

Senator SWANSON. How much is included in the legislative bill?

Mr. KETTNER. We simply made the authorization—that is all we are required to do—of $1,900,000. Now, I do not want to say that you should appropriate that, but I do believe the committee should take some action to appropriate a small sum for which to go ahead with the hospital—make the authorization, or, rather, make the appropriation, so it will go ahead.

Senator HALE. What was the total cost of the hospital to be?

Mr. KETTNER. Admiral Parks, I presume, can tell you about that.

The CHAIRMAN. The total cost authorized in the House bill was $1,975,000.

Mr. KETTNER. That is in addition to what has been let. They had some money in a general fund; and a contract was let, I believe, for $716,000, which work is going on at the present time. The hospital, I was informed, was to cost about two and a half million.

Senator SWANSON. Was this land given for hospital purposes or any Navy purpose?

Mr. KETTNER. It was given for hospital purposes, but there was no proviso. It is the very finest land.

Senator BALL. It is the most beautiful site around San Diego.

Senator SWANSON. What hospital facilities have you for the entire Pacific Fleet; where are your hospitals located?

Mr. KETTNER. I believe there is a small one at Mare Island and one at Bremerton.

Senator SWANSON. Are those the only two?

Mr. KETTNER. Yes, sir.

Senator SWANSON. Is it the intention to make this the main hospital of the Pacific Fleet?

Mr. KETTNER. That is what I understand. They have 300 patients there in the park buildings, and have had since 1917.

Senator SWANSON. Do you mean they are to complete the base on San Francisco Bay and have their hospital at San Diego; is that it?

Mr. KETTNER. We always have had three hospitals out there.

Senator SWANSON. Is the main one to be there?

Mr. KETTNER. Not necessarily the main one. On the Bremerton hospital they just built one and stopped. Mare Island they rebuilt in 1898 after the earthquake destroyed it. That leaves three hospitals for the entire coast, and in the meantime the naval hospital was open to all those incapacitated men. We fill them up as fast as we can.

Senator SWANSON. How much space have you more than the Navy needs in your present hospitals out there?

Mr. KETTNER. I should say the two most northernmost hospitals are used pretty well up to their limit. I have not been to the Mare Island hospital for some time. Of course, during the war I know they were; and this will make only three hospitals on the Pacific coast.

Senator SWANSON. Is it your idea to build hospitals to be open to the general public?

Mr. KETTNER. No, sir; except I think that you enacted a law that requires the Army and Navy to take in any of these war heroes.

Senator SWANSON. You refer to the class of the men who served in the war?

Mr. KETTNER. Yes, sir. We have opened every hospital, I think, for that purpose.

Senator SWANSON. But not to the general public?

Mr. KETTNER. No, sir.

Senator SWANSON. Simply those general hospitals?

Mr. KETTNER. Yes, sir; open to everybody. May I explain that San Diego is now building a marine base, naval training stations, flying stations, repair bases, and a warehouse and the torpedo fleet. As I say, they have 300 patients there now and are making arrangements, I believe, for 800 patients.

The CHAIRMAN. Is that due to the climate, that such a large number of patients are cared for?

Mr. KETTNER. Senator Poindexter has visited San Diego and can answer the question for himself.

Senator SWANSON. My idea is that you ought to have a main hospital where your main base is and good and complete facilities at this and other places. What I want to know is, are they going to make the largest and most expensive hospital at San Diego?

Mr. KETTNER. I do not know.

Admiral COONTZ. Can you state the cost of those others, Admiral Parks?

Admiral PARKS. No, sir; I can not.

Admiral COONTZ. The destroyer base is at San Diego, the submarine base is at San Pedro, and the fleet itself will base on three points—Puget Sound, Mare Island, and San Pedro; at times they will stay south and at times will go to Puget Sound for drills and maneuvers. Of course, we think we ought to have three hospitals on the Pacific coast, as compared to the vast number on the Atlantic coast, as the fleet will be based there.

Senator SWANSON. What are the facilities to be provided for the hospital at San Francisco—how many beds?

Admiral COONTZ. I do not know, but I can find out.

Mr. KETTNER. I hope that you will not forget, gentlemen, the position that it leaves us in. We are perfectly willing to turn over everything to the Navy. We have shown that by giving them some

3½ miles of our best water front, and we have given them the finest land, as I have stated, in the park, and we hope you will make some proviso to continue this hospital. As it is now, it is subject to a point of order in the House.

Senator HALE. And those men are in those rooms?

Mr. KETTNER. Some of them.

Senator HALE. Could you not give us the building?

Mr. KETTNER. Well, if the Senator will ever visit San Diego, I think he will be satisfied with what we have already given the Navy. I think Senator Ball and Senator Keyes will both tell you about it.

The CHAIRMAN. Are those buildings that are now occupied erected on the land which has been donated?

Mr. KETTNER. No, sir. We have given you 18 acres of the finest land in the park.

The CHAIRMAN. Are there any buildings on those 18 acres?

Mr. KETTNER. None at all. They are building a hospital there now with money out of the general fund. The first contract was made, but there has been no proviso made to continue it, and we have no money on hand to continue it.

Senator SWANSON. How much would it take to complete what they have at present built?

Mr. KETTNER. The $1,900,000.

Admiral PARKS. That is, $1,900,000 based on the capacity that is estimated to be necessary at that place. That is, if there were 50,000 men in the fleet on the Pacific, there would be hospital facilities for 2,500, and it is purposed to make the capacity 800 in at least one of the hospitals to be located at San Diego, and San Francisco Bay and Puget Sound will have the others.

Mr. KETTNER. That is all I care to say, Mr. Chairman, and I thank the committee.

Admiral PARKS. Now, that item, I think, should be introduced on page 3 at line 6, to modify it in accordance with a statement made by a member of that committee—at a total cost not to exceed $1,975,000. The estimates for each plant was two million and a half. We are spending a little over $700,000 now. So I think that those figures ought to be changed—at a total cost not to exceed two and a half millions. They have made that $1,975,000 in addition to what we now have under contract.

Senator BALL. Your idea would be to make an appropriation for the completion now?

Admiral PARKS. I believe the appropriation ought to be made pretty soon, but it is a good idea, I believe, to get this authorization in and some of the money toward it. If we had enough money to make one half of the capacity in this year's bill, I think it would be all right. So if an item were put in authorizing a total cost of two and a half millions and appropriating a million toward that we would get along all right this year.

Senator BALL. There is an item, I think, of $164,000 in the legislative bill of the House for buildings at Camp Kearney, San Diego.

Admiral PARKS. In the bill H. R. 15994, section 7, it is provided:

That the appropriation of $750,000 for water-front improvement, navy yard, New York, N. Y., contained in the naval appropriation act for the fiscal year 1919 is hereby suspended until July 1, 1923.

At present that fund is suspended until July 1, 1922, and it is perfectly satisfactory to have that introduced in this bill suspending it for another year.

The CHAIRMAN. What section is that?

Admiral PARKS. Section 7, on page 5, of the bill H. R. 14994.

Senator HALE. The same thing is on page 20 of the committee print. It is suspended until 1923.

Admiral PARKS. In this bill it is suspended until 1922. That is all right.

Senator HALE. But you want it suspended until 1923.

Admiral PARKS. I do not care. I do not think we will be really ready to use it next year.

Senator HALE. Let us cut it off, then, until 1923.

Senator BALL. Mr. Chairman, I introduced another amendment to the bill, the repeal of the appropriation for a dry dock at Charleston. The Secretary of the Navy, I think, has written a letter in opposition to the repeal. That was made as a result of the investigation of the special committee appointed by the naval committee, consisting of Senator King, Senator Keyes, and myself. We went down to Charleston. They have a very good small dry dock there now, a concrete dock. It is 566½ feet long, but they have never had a boat or a ship of any kind there for repair, or for the building of any anywhere near the capacity of the dry dock they have. The Atlantic coast has a number of thousand-feet dry docks; in fact, they have in all 18 dry docks, and the Pacific coast has in all only 4.

Senator HALE. That includes private docks.

Senator BALL. I am talking about the Navy. All the dry docks on the Pacific coast are small. In fact, there is only one larger than the Charleston dry dock on the Pacific coast not privately owned——

Senator HALE. At Hunters Point.

Senator BALL. At Hunters Point there is a privately owned dry dock which the Government has certain rights to use. But the Government owns no dry dock on the Pacific coast more than eight hundred and some feet, and that is at Bremerton. The rest are all small, practically less than 400 feet in length, two of them.

Now, it appeals to me very strongly that the money—since the fleet is divided half on the Pacific coast and must be cared for—that it is very urgent that what money is expended at this time for a base of that kind and dry docks, that we may take care of our Navy, should be expended.

Senator SWANSON. The Panama Canal has dry-dock facilities?

Senator BALL. A thousand feet.

Senator SWANSON. They have a good one there?

Senator BALL. Yes.

Senator SWANSON. And then they have one at Hunters Point and at the Hawaiian Islands?

Senator BALL. And at Mare Island and at Bremerton.

Senator SWANSON. And the one at Hawaii?

Senator BALL. Yes: but that is several miles away. It is not on the Atlantic coast.

The CHAIRMAN. When we go into executive session if you will present that to us we will take it up for consideration.

Senator BALL. I think in taking up the amendments you had better have a record of that amendment also.

Senator SWANSON. I think we should let both of the Senators from South Carolina be heard fully and completely on the subject.

The CHAIRMAN. Yes; that should be done. Are there any further remarks, Admiral Parks?

Admiral PARKS. There is an amendment, Mr. Chairman, that was intended to be proposed by Senator Fletcher. It has reference to Key West, Fla., providing for the submarine base, to continue, $800,000 to be made immediately available.

Senator HALE. Is that in the bill?

Admiral PARKS. No; it is not in the bill.

The CHAIRMAN. Senator Fletcher has an amendment, and he requested to be heard on the amendment.

Admiral PARKS. We have an authorization of $2,500,000, with an appropriation of $1,000,000, and under that authorization we have entered into a contract which amounts to more than $1,700,000, and to complete that contract, which is due for completion this next summer, we would require one million seven hundred and odd thousand dollars. There were certain other incidental expenses making it necessary to have available $1,800,000 to complete the work now under way, which is all harbor work. The shore stations' work has not been undertaken, and that would have been done under the difference between the present contract and the authorization.

In the House committee it was thought that we might not have immediate use for a submarine base at Key West and that it would be profitable to cancel this contract and not complete that base at this time. The chairman of the subcommittee stated that he would take that up with the House Naval Committee and secure legislation in the other bill. But I do not find that legislation in that bill.

Senator HALE. What are your views about it?

Admiral PARKS. My views are that we have not a very good proposition down there under our present contract, and that to make it thoroughly satisfactory we will have to have a larger authorization than two and a half million, and I feel inclined to agree with the chairman of the House committee on this particular project. But we have got to have the money to close up the contract.

The CHAIRMAN. What can we get out of it for?

Admiral PARKS. If it is made immediately available, with instructions by Congress to close the contract, I believe we can get out of it for not over a million and a quarter. But every day that it is allowed to run the expenses are mounting up rapidly.

The CHAIRMAN. When was this authorization granted?

Admiral PARKS. That was in the act of 1919, as I recall it.

Senator SWANSON. I think it was earlier than that—1918.

Admiral PARKS. Well, the authorization was during the war. (Act of July 1, 1918.)

The CHAIRMAN. What would this million and a quarter loss consist of if you dropped the matter now; where would we be liable for the million and a quarter?

Admiral PARKS. For work that has been done under the contract, and we would probably have to pay some prospective profits under the settlement if the contract is not carried out.

The CHAIRMAN. What was the original limit?

Admiral PARKS. $2,500,000.

Senator SWANSON. I wish the Navy people would not change so often. They came to us with the bill and insisted that they needed a submarine base down in the Panama section of the country. They went and examined it and decided that that was the best place to have a submarine base for operations down in the West Indies. Now, where would you have a base if you did not have that?

Admiral PARKS. As far as I can see, that is the best place for it.

Senator SWANSON. I confess I am a little tired of this way of coming here and getting appropriations, forcing us into it—that you are bound to have a base; that you could not protect the Panama Canal nor the Gulf of Mexico, and going to the expense of half the money and then coming and wanting the balance of it, and not needing it. They ought to have a policy one way or the other. The Chief of Operations of this fleet insisted with Senator Lodge and myself that if we did not put a base down there the whole place would be defenseless. Now, they come here and want to abandon it.

Admiral COONTZ. I still insist on it. You will find a letter from the Secretary of the Navy asking that this project be completed. As far as the submarine base is concerned, there is no desire to abandon it. If there is any doubt about it, send somebody down there. Everybody is of the opinion that there must be a submarine base in that part of the country and that Key West is the best place for it.

Senator HALE. Where would the alternative be?

Admiral COONTZ. Somewhere in the Caribbean, where we do not own anything.

Senator SWANSON. Or one at Cuba.

Senator HALE. Or at Guantanamo?

Admiral COONTZ. We could not safely put it at Guantanamo, because it does not come to us except under certain conditions. My judgment would be with regard to this, to finish it up as cheaply as possible, leave out the shore part and the marine base. If you are going to go in there at some future day, you can leave that to take care of itself.

The CHAIRMAN. How is the bottom of the water there for submarine purposes?

Admiral COONTZ. The water is all right. You only go a short distance until you get out into the blue limpid waters of the Gulf Stream. It is climatically and in every other way a very good place, and before we abandon it and let any of that money go I would certainly hesitate until we got plenty of evidence to the contrary. As far as I know, it is all right, but, as I say, I am perfectly willing to leave out the marine railway and the shore facilities, but I certainly would not stop and leave the other.

The CHAIRMAN. Admiral, I wish you would have prepared for us—or maybe Admiral Parks can prepare for us—some figures showing the minimum amount for which this work that has already been done can be completed and perfected so as to make it serviceable as a submarine base without these shore improvements that the admiral has referred to.

Admiral PARKS. That is a very difficult proposition, for one reason. I do not know whether that embankment that we are putting up for the breakwater is going to stand or not. The Florida east coast engineers, who have had some experience with that kind of shore work, stated that the coral embankment, covered with a cer-

tain number of feet of marl, would stand a hurricane. Now, what we have had so far in our excavation has been coral broken up so fine that it all goes through the suction dredge.

I am not familiar with that work on the Florida coast, but when we have completed this embankment and covered it with marl, it may stand. I should be very much pleased to see that it does. But most breakwaters have got to be heavy, and coral is not heavy.

The CHAIRMAN. I would be glad if you would get us some definite information by to-morrow, if you can, on that subject, with a view to alternative in case it be decided to complete the contract in hand, and get a base limited to as small an investment as possible.

Admiral PARKS. That would be the $800,000 that we have here. That is the minimum.

The CHAIRMAN. Admiral Coontz, I would like to have the views of the Department about that, and also about this proposed dry dock at Charleston, S. C.

Senator KEYES. We have a report from the Secretary on it.

Admiral COONTZ. Yes; the Secretary has made a report on that.

The CHAIRMAN. I mean if you have any further information in addition to that.

Senator SWANSON. In fixing up this report on Key West when that was located there—it was done at the request of the Chief of Operations, and the General Board and all went down and investigated that, for the purpose of having a submarine base in the West Indies, and I would like to see if you could find a better one. We would not take it at Cuba because we would have to have the Army to protect it, and Panama might lose it, and I want to see why the Navy continues to change its bases.

Admiral COONTZ. As far as I know the Navy has not changed one iota, that Key West was the base. I have never heard anybody say to the contrary.

Senator SWANSON. I wish you would get the statement of what the Navy officers told the committee.

COPY OF MEMORANDUM FILED BY THE SECRETARY OF THE NAVY IN CONNECTION WITH HIS HEARING BEFORE THE HOUSE NAVAL COMMITTEE ON JUNE 4, 1918.

Subject: Improvements in Key West Harbor.

Reference: H. R. 10069, "An act making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes."

1. The above-mentioned bill contains in it a clause for the appropriation of a certain sum of money to be devoted to the improvement of the harbor of Key West, Fla. As the development of Key West is a matter in which the Navy has been interested for a long time, it is deemed appropriate at this time to indicate concisely the Navy Department's policy.

2. Fortunately, in the past the United States has not been forced to conduct a major campaign in defense of its shores. For this reason, largely, and perhaps to an extent because Key West is a somewhat advanced and isolated position on our own coast, its strategic and tactical importance has not been so much to the fore as other localities in the world. However, the Navy Department has always appreciated the military importance of this particular site as a base for naval operations, in case we were ever forced to conduct operations on or near our own coast.

3. A radius of 1,100 miles sweep from Key West as a center includes within the circumference of the circle nearly all the following positions: The entire Mexican, Central American, Canal Zone, and Colombian coasts, the islands of Curacao, Cuba, Haiti, Porto Rico, and St. Thomas, Bermuda, the Bahamas, and the coast of the United States to New York. All of the more important

passages leading from Europe into the Gulf of Mexico are included in this sweep. Its strategic importance as a base for naval operations is therefore clearly shown.

4. The present war may, before its close, find hostile submarines of the cruising type operating on this side of the ocean. All of the shipping from the Gulf of Mexico, including the tank steamers carrying that most vital necessity—oil—must pass through this area.

This shipping should be protected, when the necessity arises, by every means in our power. Except for Habana, which is small, and a few anchorages behind the reefs, there are no harbors where the above shipping may take refuge from a submarine except at Key West. As a base for offensive operations against submarines Key West is ideal, and the Navy Department has taken advantage of this fact to mobilize certain of its forces there, and is taking steps to further expand the facilities of the port.

5. With the above in view, the Navy Department has no hesitancy in saying that both for the future and for the immediate present the improvement of the natural harbor facilities of Key West is regarded by it with favor, as a step in the right direction and one which will further its development as a naval base.

The CHAIRMAN. The committee will now adjourn until to-morrow morning at 10.30 o'clock.

(Whereupon, at 5.20 o'clock, p. m., the committee adjourned until to-morrow, Saturday, February 19, 1921, at 10.30 o'clock a. m.)

NAVAL APPROPRIATION BILL, 1922.

SATURDAY, FEBRUARY 19, 1921.

UNITED STATES SENATE,
SUBCOMMITTEE OF COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10.30 o'clock a. m., in committee room, Capitol, Senator Miles Poindexter presiding.

Present: Senators Poindexter (acting chairman), Lodge, Hale, Ball, McCormick, Keyes, Swanson, Walsh of Montana, Gerry, and King.

STATEMENT OF REAR ADMIRAL WILLIAM F. FULLAM, UNITED STATES NAVY, RETIRED.

The CHAIRMAN. The inquiry that we had in view in calling you was in regard to the question of the policy of the country with regard to battleships, and the question as to whether or not it was sound policy or practicable to suspend the 1916 building program that is now in progress. That is the general question on which we ask to have you make a statement. You need not confine yourself absolutely to that, but we would like to hear from you on that subject.

Senator LODGE. Of course, the admiral is aware that the committee has recommended the construction of two plane carriers in its report.

Admiral FULLAM. Yes, sir. Before I begin my statement I wish to say that I am very much embarrassed, because I love battleships and surface ships. I have spent all my life in them, and I despise submarines, mines, torpedoes, airplanes, and all these other develish contraptions that have recently appeared on the seas; but they are here; we can not ignore them, and, therefore, with me it is a question of deciding how to utilize them and what their power is.

I am in favor of a very strong Navy, a Navy that will be very strong in 1922, and thereafter, instead of one that may be weak. If the people of the country would give us all the money required to build all of the ships for the 1916 program, and in addition the money which it seems to me is absolutely necessary for submarines and airplanes, then I would never lift a finger against the 1916 program, but I fear that they have not the money to give us for everything, and the question therefore is with me how best to utilize the money that may be available.

I am afraid that naval officers demand too much, that we may lose our influence with the people. They say that we are not satisfied, that we are unreasonable, and that we demand things that may in a short time prove to be ill-advised, and that we lose much more than we gain. Therefore, I have come down to just explain that my view is that the Navy must operate now on three planes, on the surface of the sea, beneath the surface, and above the surface. It is a 3-plane, a 3-idea thing, from this time on. You can not get away from it. If we get on one idea we will have a 1-idea Navy, a 1-plane Navy, instead of a 3-plane Navy, and that is the whole basis of my statement.

Senator LODGE. You do not think, Admiral, that anybody is suggesting that we should operate only on one plane?

Admiral FULLAM. Not most people, sir, but many are rather anchored on that.

Senator LODGE. I think that is certainly not the view of the committee.

Admiral FULLAM. I do not suppose it is, but I have seen indications that the two upper and lower planes have been rather subordinated too much.

Senator HALE. You do not want to give up any one plane?

Admiral FULLAM. No, sir; but I want to have them all working and coordinating together, hitched together, and just now we can not tell which plane is dominant. We have got to study it very carefully, and it is now chaos. My idea is to proceed carefully and not to put too much emphasis on any one plane until we see where we are at. I will proceed now with my statement.

1. Our fighting fleet to-day: The United States battle fleet comprises 8 dreadnaughts—*Utah*, *Florida*, *Delaware*, *North Dakota*, *Wyoming*, *Arkansas*, *New York*, and *Texas*, and 8 superdreadnaughts—*New Mexico*, *Idaho*, *Mississippi*, *Tennessee*, *Pennsylvania*, *Oklahoma*, *Nevada*, and *Virginia*. All other battleships in the Navy are practically obsolete. Thus we have 16 modern fighting dreadnaughts. This is a strong force.

Next to the dreadnaught fleet in importance, we have about 300 modern destroyers. This is a very powerful asset.

Under construction, dreadnaughts: There are 11 superdreadnaughts under construction. Of these, 6 are between 25 per cent and 90 per cent completed, as follows: *California*, *Colorado*, *Maryland*, *Washington*, *West Virginia*, and *South Dakota*. It would appear good policy to complete these 6 ships, which would give us a very powerful battle fleet of 21 dreadnaughts.

The remaining five dreadnaughts are less than 25 per cent completed, as follows: *Indiana*, *Montana*, *North Carolina*, *Iowa*, and *Massachusetts*. It would appear wise to suspend further construction on these five ships for at least six months while it can be determined whether or not they may be obsolete in the near future or if changes in their design may be advisable. They might, for instance, be completed as airplane carriers or they might be given armored decks to protect them from bombing.

Inasmuch as we will have 22 dreadnaughts without these 5, we may wisely wait six months. These ships are not needed, and may not be needed in the future.

Under construction, cruisers: There are six battle cruisers under construction, as follows: *Lexington*, *Constellation*, *Saratoga*, *Ranger*, *Constitution*, and *United States*. These six ships are less than 10 per cent complete. It would, therefore, be wise to suspend construction on them for six months at least, or continue construction only on their hulls and machinery, so that they may, if necessary, be changed in design or be transformed into airplane carriers as circumstances may dictate.

There are 10 scout cruisers under construction, from 30 per cent to 80 per cent completed, as follows: *Omaha*, *Milwaukee*, *Cincinnati*, *Raleigh*, *Detroit*, *Richmond*, *Concord*, *Trenton*, *Marblehead*, and *Memphis*. These cruisers should all be completed as soon as possible. Our Navy is sadly in need of cruisers. No matter what may happen as regards capital ships, cruisers of this type will always be needed.

Under construction, submarines: There are 47 submarines under construction. They should be finished without delay. We are fatally short of submarines. There are no submarines in our Navy capable of cruising and fighting with the fleet. It is an amazing and perilous situation. There is not one long-range up-to-date submarine cruiser or mine layer in the Navy.

Senator LODGE. I hate to interrupt you, but I think that that is giving an impression that is different from what we had. We are building four fleet submarines, as they are commonly called, of the large type, are we not?

Admiral FULLAM. I do not know, exactly; they are not in the Navy to-day.

Senator LODGE. Oh, no; you were describing how many were being built, as I understood you?

Admiral FULLAM. My statement is there is not one long-range, up-to-date submarine cruiser or mine layer in the Navy to-day.

Senator SWANSON. I understand we have three——

Admiral FULLAM. There is a small number.

Senator SWANSON. I understood you to say there was none.

Admiral FULLAM. I am stating what has been told me by a submarine officer.

Senator LODGE. We want to get the accurate information. I supposed we were building four fleet submarines, and if I am wrong in my supposition I want to be corrected.

Admiral FULLAM. I think Admiral Coontz and others could tell you about the details, with which I am not fully familiar. What I am referring to now is what the situation is as it exists.

Senator GERRY. I understand we have one fleet submarine in commission now, and that there are two more very near complete, which would make the three fleet submarines.

Admiral FULLAM. I hope that is so. If devoid of submarines and air forces a surface fleet, no matter how powerful, will be practically helpless if it meets a fleet properly supplied with these modern weapons.

A powerful surface fleet: From the above it will be seen that we have now, on or near completion, a powerful surface fleet. Even without the battle cruisers it is strong, because we have a vastly larger destroyer force than any nation except England. This force

is so strong that if well manned and well handled it would so threaten a hostile fleet and so well screen our own fleet that, with scout cruisers and airplane carriers we may not need battle cruisers. It is more than probable that the airplane and the torpedo-plane carrier will soon be recognized as a capital ship, quite equal to a battle cruiser in usefulness and fighting power.

Briefly reviewing this subject of our surface fleet, we find that with 22 dreadnaughts, 300 destroyers, and 10 scout cruisers our Navy will stand next to that of England; it will be at least 30 per cent stronger than that of Japan, and omitting Great Britain, it will be more powerful than the combined navies of all Europe.

In the face of these facts it can not be truthfully said that in suspending work on five battleships and six battle cruisers, we are advocating a weak navy, inadequate for national defense. On the contrary, suspension of work temporarily on these vessels will safeguard us against a policy that will produce a weak navy as the only return for the expenditure of hundreds of millions of dollars. A surface navy alone is a one-idea navy. Such a navy is weak to-day, and it will be still weaker in the near future. It is necessary at this point to consider the limitations of a surface navy.

Limitations of a surface fleet: Those who advocate large additions to our surface fleet before providing the submarine and air force in which we are fatally weak are constantly asserting that the battleship is the "backbone" of the fleet; that we need a "powerful navy" to "control the sea," to protect our commerce, etc., and they insinuate that the advocates of air and submarine forces are not impressed with the importance of a "backbone"; that they are "little Navy men"; that they would not protect our commerce and would give up the control of the sea. But with all due respect it may be said that a "backbone" alone will not suffice; it does not constitute a powerful navy; it can not control the sea; it can not protect commerce, in fact, a navy composed of "backbones" alone is a weak navy: it can go nowhere and it can do nothing. The boot is on the other foot.

Let us consider briefly this much used—ignorantly used—term "control of the sea."

On page 21 of Admiral Sims's book, referring to the condition existing on the English coast in April, 1917, when the unequaled navy of England, supported by the navies of France, Italy, and Japan, might have been supposed to command the sea, inasmuch as the German fleet was blockaded, we find the following:

> It was not until the spring of 1917 that we really awoke to the actual situation; it was not until I had spent several days in England that I made the all-important discovery, which was this—that Britain did not control the seas. She still controlled the seas in the old Nelsonian sense: that is, her Grand Fleet successfully "contained" the German battle squadrons and kept them, for the greater part of the war, penned up in their German harbors. In the old days such a display of sea power would have easily won the war for the Allies. But that is not control of the seas in the modern sense; it is merely the control of the surface of the seas. Under modern methods of naval warfare sea control means far more than controlling the top of the water. For there is another type of ship, which sails stealthily under the waves, revealing its presence only at certain intervals, and capable of shooting a terrible weapon which can sink the proudest surface ship in a few minutes. The existence of this new type of warship makes control of the seas to-day a very different thing from what it was in Nelson's time.

As long as such a warship can operate under the water almost at will—and this was the case in a considerable area of the ocean in the early part of 1917—it is ridiculous to say that any navy controls the seas. For this submarine vessel, when used as successfully as it was used by the Germans in 1917, deprives the surface navy of that advantage which has proved most decisive in other wars. That is, the surface navy can no longer completely protect communication as it could protect in Nelson's and Farragut's times.

Senator LODGE. I dislike to interrupt you, Admiral, but did the Nelsonian navy ever control the seas so that the commerce of England was not preyed upon and destroyed?

Admiral FULLAM. It controlled the seas. It may not have been perfect because the seas cover three-fourths of the globe.

Senator LODGE. The submarine did, of course, chiefly destroy commerce, but has the battle ever been won by commerce destroying alone?

Admiral FULLAM. Oh, no.

Senator LODGE. Commerce destroying in the Nelsonian sense were privateers as in the War in 1812, and the English Channel.

Admiral FULLAM. Nelson controlled the sea; as Admiral Mahan said, his control of the sea was in a war sense.

Senator LODGE. In a military sense.

Admiral FULLAM. In a military sense, and that was the cause of the downfall of Napoleon.

Senator LODGE. Did not England in the last war have a pretty fair military control of the sea?

Admiral FULLAM. It did not prevent her from being nearly starved.

Senator LODGE. That is commerce destroying; but is commerce destroying sufficient?

Armiral FULLAM. If it starves your enemy in war. You may win a war without fighting a battle if you starve your enemy. I am getting straight at the target now. What is the object of war? It is to beat the enemy. If we can beat him by starving him there is no use in fighting.

Senator LODGE. Did the German submarines succeed in starving England, as a matter of fact?

Admiral FULLAM. I am coming to that. They came pretty near it.

Senator SWANSON. If the German fleet had been stronger than the English fleet they would have been starved at once.

Admiral FULLAM. I am coming to all that; if you will really let me finish the statement; I think you will be better pleased with what I have to say.

Senator KING. Is this still a quotation from Admiral Sims that you are reading?

Admiral FULLAM. Yes. [Reading:]

The surface vessel no longer guarantees a belligerent its food, its munitions, its raw materials of manufacture and commerce, or the free movement of its troops. It is obviously absurd to say that a belligerent which was losing 800,000 or 900,000 tons of shipping a month, as was the case with the Allies in the spring of 1917, was the undisputed mistress of the seas. Had the German submarine campaign continued to succeed at this rate, the United States could not have transported its Army to France, and the food and materials which we were sending to Europe, and which were essential to winning the war, could never have crossed the ocean.

A little study of this subject will give to some people who talk glibly about "control of the sea" a fundamental knowledge of the subject.

Subsequent to the armistice and two years after Admiral Sims went to England a new naval force, then in its infancy, has been rapidly developed—the naval air force. And to-day this force operates with other forces to decide who shall and who shall not control the sea. This force, moreover, operates with the submarine to impose still other limitations upon the surface fleets of Nelson and Farragut. The "backbone" needs still more assistance. The surface fleet in the hitherto easy task of "controlling the sea" needs another ally—a force above it as well as a force below it. Without these two forces—if the enemy possesses one or both—the surface fleet can "control" nothing.

A three-plane navy: It must be evidence that a modern navy will operate on three planes—the surface, above the surface, and beneath the surface. These forces must exist in due proportion, and must be coordinated strategically and tactically to win a modern naval battle. The navy which lacks force on the upper and lower planes will be seriously menaced. A one-plane navy can not win against a three-plane navy. The Navy of the United States to-day is practically a one-plane Navy. The minds of many naval officers and legislators are fixed upon one, or, at most, two planes. This condition imperils the Nation.

Sanity is demanded in the discussion of our naval policy. Extremists with single-track minds must not control.

In the fighting navy of to-day battleships alone will not suffice, submarines alone will not suffice, air force alone will not suffice—we must have all three in proper proportion.

Recognizing this basic principle as the key to the problem for the present, the first thing to do is to determine whether or not this principle is conserved in the legislation that now shapes our building program. After supplying forces in the three planes it may, of course, develop in the months and years to come that the force on some one plane is of paramount importance. In that event we can modify the building program to suit a new condition.

Submarines in the World War: The following facts should be studied in connection with the subject of "control of the seas":

1. The Germans employed only 10,000 men in their submarine forces.

2. There were never more than 30 submarines adrift at any one time, manned by not more than 1,500 men.

3. This small force was opposed by the navies of all great nations outside central Europe—England, France, Italy, Japan, and the United States—at least 1,000,000 men; and yet this insignificant force of 10,000 Germans nearly won the war by starving England.

4. It is no argument to say that the submarine was finally defeated when we consider the odds against it. Germany was fenced in by England and France. England lay across her front door. There were but two exits for her submarines to reach the Atlantic. About 5,000 antisubmarine craft were employed daily against the 30 submarines at sea. No such condition of disadvantage will embarrass our future enemy, whose submarines may be free to roam the sea. And we may not have the navies of the civilized world allied with

our own. Can we alone place 5,000 antisubmarine craft upon the sea and strew depth charges over every ocean? Will we have 1,000,000 men with a navy equal to the combined navies of England, France, Italy, and Japan? If not, the task of downing the submarine of our future enemy will be much more difficult than was that of subduing the German submarine in the World War.

It is positively amazing that many naval officers have already forgotten or ignored these facts, and, having realized hesitatingly the importance of aviation, the Navy Department, and Congress as well, have suggested that we cancel the contract for submarines in order to get money for aviation. This is robbing Peter to pay Paul. Can not two ideas coexist in a naval mind? We must have a strong submarine force, and a strong air force, too. Without both of these forces our surface fleet will be hopeless. The submarine single handed nearly won the greatest of all wars. It has proved its prowess, and yet the United States practically ignores it.

The uses of submarines: 1. Coast defense. Small short-range submarines are invaluable for coast defense. Fifty of these can be built for the price of one superdreadnaught.

2. To defend far-away possessions. The Philippines, Guam, Samoa, Hawaiian Islands, etc. A battle fleet can not safely approach a coast well defended by submarines.

3. Attacking the enemy's commerce and protecting our own convoys. It is the most useful of all weapons for this purpose.

4. Service with the fleet. It protects the fleet. It menaces the enemy's fleet.

All these uses are most important. Space forbids a discussion of each.

Advantages of submarines: 1. Submarines have great sea endurance. A long-range submarine can remain at sea three or four months and cruise 25,000 miles. Imagine such an enemy in the lanes of commerce. Vastly more efficient than the *Emden*, or other surface ships that were soon sighted, then cornered and destroyed. No surface vessel can maintain itself so long at sea.

2. Submarines are self-supporting. The battleship can not go to sea or anchor in port without protection by destroyers, cruisers, and air forces. The submarine needs no such protection. It takes care of itself.

3. The submarine, in addition to fighting with its guns and torpedoes, may act as a most efficient mine layer, carrying 46 mines, with a sea range of 15,000 miles.

Let us now consider the weakness of our submarine force and what must be done to bring this invaluable adjunct to the proper standard of efficiency in modern naval warfare.

This was given to me by an officer, and I do not know of any other who ought to know more about the condition of submarines than he does. If it is wrong, it can be corrected.

Our submarine force: The following is the condition of our submarine force:

1. There are about 30 boats from 300 to 450 tons, all unsuitable for offshore work. They are fit only for training.

2. There are about 50 coastal boats from 350 to 550 tons now in fair condition but not intended for distant service.

3. There are about 50 boats of 800 tons and above, some uncompleted. A few of these may be efficient, but as a class they are failures.

I think the contracts have been held up.

It appears, therefore, that in three years following the armistice the Navy Department has failed to develop any long-range boats such as the Germans sent to our coast in 1918. We have spent approximately $130,000,000 on submarines, and the Navy has not one submarine to-day fit for service with the fleet.

In this the Navy Department ignores the past, neglects the present, and fails utterly to anticipate the future.

It is estimated that not less than $100,000,000 are needed to-day to supply this country with an adequate submarine force. This is the price of three dreadnaughts. In view of the fact that we have prospectively 22 dreadnaughts in our surface fleet, shall we add still further to the battleship force before we supply ourselves with submarines? It is a matter of common sense. How will the money be most wisely spent? Shall we put so much money into the craft that did not "control the sea" in the World War that we shall have no money to provide us with the weapon that fought single handed and nearly won against the combined navies of the world?

So much for the force that operates on the lower plane of a modern 3-plane navy. It remains to consider the force that operates on the upper plane.

Naval aircraft: At present the United States naval air force is pitifully inadequate to meet modern conditions. What we have is good and the personnel is efficient and brave, but the force is so small that a hostile fleet supplied with adequate air forces could completely command the air above our surface fleet and subject it to constant bombing from above, and constant attack from torpedo planes from above and below. Nothing will justify our leaving our surface fleet to such a fate.

It is estimated that not less than $120,000,000 will be necessary to provide two modern airplane carriers, together with the bombing and torpedo planes, to place our naval air force in condition to operate effectively with the fleet in modern war. This is the approximate price of four dreadnaughts. Without an air force our surface fleet, no matter how powerful, can not exist and operate effectively if the enemy command the air. As in the case of submarines, shall we continue to build dreadnaughts before we have provided the air weapons that are essential for both offensive and defensive naval warfare? It is once more a question of the most economical investment of our money. If we have a powerful surface fleet, with no air or submarine fleets, money spent upon our Navy will be wasted. It will be a weak Navy in every sense of the word.

Senator HALE. Where did you get the figures, $120,000,000?

Admiral FULLAM. They were prepared for me by the best authority on aviation in this country.

Senator HALE. The evidence that we have before us is that we can get two carriers for $48,000,000.

Admiral FULLAM. I accept that.

Senator HALE. Where is the rest of it consumed?

Admiral FULLAM. I had a statement of it but did not put it all in. It comes in supplying bombing planes, torpedo planes, and all

the paraphernalia, together with repairs, etc., that would be needed to make up an air force—the forces which we have not got. When you get your airplane carriers you want some airplanes for them to carry.

Senator HALE. But you assume it would cost $70,000,000 for that purpose?

Admiral FULLAM. I did not assume it. I asked an officer of high rank, whom I think you all would admit is well informed.

Senator HALE. But you are giving us the figures that we have never heard suggested before.

Admiral FULLAM. I am only telling you how I got them. I will ask the officer who gave me those if I may divulge his name to the committee. You can correct these if you choose. I do not pretend to say that I can swear under oath to every statement I make here. There may be many inaccuracies. I said it is estimated, Senator.

Senator HALE. But is so entirely different from any statement we have had heretofore, or estimate, that I want to know how you got it.

Admiral FULLAM. I will have to leave that to Capt. Craven and the officer who gave this to me. I understood it was a liberal estimate of what we needed for airplane purposes.

Senator HALE. You mean an estimate by somebody whose business it is to estimate or just a general guess by somebody?

Admiral FULLAM. He consulted with other officers, whose business it is to estimate. I do not like to betray his confidence by giving the name. I discussed the matter with him. I think, however, he would be very willing to permit me to do so, and later on I can tell you, if you wish to know.

Briefly considered, an air force with the fleet will be required for observation and scouting; for "spotting," or controlling long-range gunfire; for bombing the enemy; to torpedo the enemy by means of the torpedo plane; to place a barrage of mines around a hostile fleet; and last, but not least, to subject the decks of enemy ships to bombardment by means of nonrecoil guns, which are now being mounted in airplanes. Thus airplanes will bring four weakons to beat upon surface ships—bombs, torpedoes, mines, and guns.

Can a force so varied and powerful be ignored while we add without limit to the surface fleet, so vulnerable to attack from above and below?

In this connection it is important to note that England, France, and Japan are strenuously seeking the fullest possible development of air forces. These nations see the handwriting on the wall. They realize that air power is a necessary adjunct of sea power. Indeed, we may assert that sea power hereafter can only exist with the aid of air power. The fleet or the ship which loses the control of the air above itself can not "control" the sea.

Battle fleets in the World War: Having considered the part played by the submarine in "controlling the sea" between 1914 and 1918, and having noted that it nearly won the war against the combined power of the surface fleets of the world, it is important to note the part played by battleships while England faced starvation in order that we may form an intelligent idea of the probable rôle of battleships in the future.

It will be conceded that the grand fleet of Great Britain, in the early months of the war, before the submarine fleet of Germany was fully developed, prevented an early victory for the Central Powers. It probably saved France, and the world as well, from German domination. England's surface fleet drove Germany's surface navy off the sea and bottled up her main force. The sea in the early months of the war was controlled as in the days of Nelson, Farragut, and Dewey by a powerful surface fleet.

But when the submarines appeared in large numbers—even to the correspondingly small number of 30 at any one time—we have seen from the quotation from Admiral Sims's book that the grand fleet lost control of the sea for all practical purposes. It simply blockaded Germany's surface fleet, while the submarine dominated the situation to the extent that it brought England to the verge of starvation.

The grand fleet and the high seas fleet both remained in port except for short cruises, when they steamed at high speed, protected by cruisers, submarines, and destroyers. They did not protect commerce; they did not influence the food supply of England, except that each fleet kept for its own protection large forces of auxiliary craft that might have supported or combated the submarine in its deadly work.

In June, 1916, the Battle of Jutland was fought. This was the only battle in which battleships took part, and in this they were only incidentally engaged, with little result to either side.

After this, as before, battleships remained at their bases, taking no part in the struggle that involved the starvation of England and the winning of the war.

Has this fact been fully appreciated by those who are shaping the building policy of the United States Navy? And while the grand fleet was watching the high seas fleet—its paramount duty, to be sure—did the battleships of France, Italy, and the United States influence the result in any way? Did they chase or combat the submarines that were starving England? They did not, because they could not. It would have been folly. The seven United States battleships sent to Europe remained in port, waiting with the grand fleet for the battle that never came. The sea meanwhile was controlled by other forces.

Not only this, but all the Allies stopped building battleships and feverishly augmented their fleets of destroyers and small craft. The United States suspended the 1916 building program and started, very tardily, to build 250 destroyers, only 8 of which ever got into the war. It was largely a post-mortem contribution. It did not influence the World War, but, fortunately, we can use these destroyers in the future against the one weapon—the submarine—that may seek to control the sea in the future, as it most certainly controlled the sea during the dark days of 1917–18.

It is clear that had the Navy Department intelligently anticipated our entrance into the World War it could best have prepared by stopping the 1916 program even earlier—yes, before it was ever outlined—and concentrated upon destroyers and small craft to combat the enemy which the department had been watching for two years in the deadly work of "controlling the sea."

And now, in 1921, four years later, the Navy Department again goes back to the 1916 program, which did not provide ships to fight against Germany. It proposes to double the number of ships that could not fight submarines then and can not fight them now. One would imagine that submarines had been abolished. But they still exist, though not in our Navy in the numbers required to "control the sea."

It is interesting to consider what would have been England's wisest course had the high sea fleet been completely destroyed at Jutland. It will be admitted that England's dreadnaughts, as well as ours, would not have searched the sea for submarines, nor would they have been assigned to the duty of escorting merchant vessels and transports. Had they gone to sea would they not have been compelled to take with them for their own salvation the protecting screen of cruisers and destroyers that are most efficient in combating the submarine? From this, is it not manifest that the wisest thing to have done would have been to lock England's battleships, as well as our own, safely in protected harbors and then send for about 100 destroyers and many cruisers that were needed to save England from starvation?

Now, what would Germany have done had she lost the high seas fleet at Jutland, or what could she have done if she had even attempted to maintain a useless surface fleet after she entered the war? She probably could have doubled the number of her submarines, in which case there is good reason for saying she would have won the war.

It will thus be seen that the battleship was little used, and was, indeed, of little use, especially after June, 1916. Battleships did not attack the German bases. Would we have sent our battleships to attack the coast of Germany and Austria, even if those powers had possessed nothing but submarines?

Battleships were used to no avail in the Gallipoli campaign. Turkey had no navy and the Allies had an overwhelming force of second-line battleships and at least one superdreadnaught. But they failed. The allied navies never succeeded in fully controlling the submarine in the Adriatic or the Mediterranean.

It is not intended in this article to contend that our battleships are useless to-day and should be scrapped. Not at all. But it is contended that their power and usefulness have been greatly limited of late; that they are seriously menaced; and that a full discussion of their probable and possible rôle in future warfare is necessary at this time. Surely we may assert that the battleship, even as a "backbone," will not suffice to control the sea.

In concluding this subject it must be remembered that in future warfare the submarine will be allied with aviation—bombs, torpedoes, mines, and guns from above. The battleship in the World War was comparatively immune from air attack. It is now between two fires.

The solution, for the present, of this problem of naval chaos would appear to be a "three-plane Navy," and the importance of each plane must be judicially decided.

It has been shown that in completing six battleships and leaving five uncompleted we will have a powerful force of 22 dreadnaughts. It has been shown that for the price of three battleships we can supply an air force. Will the people give us the money to complete all the battleships and in addition the money to supply submarines and

air forces? If not, what shall we do? Would it not be wise to take the money from uncompleted surface ships and use it for the two forces without which surface ships can not exist upon the sea? Would it not be the part of wisdom to supply ourselves with a three-plane rather than a one-plane Navy at this time? This is the one question that must be answered.

Submarine versus surface ships: It has been stated that German submarines sank few men-of-war. This statements demands investigation.

Senator BALL. Before you leave that, would the submarines have been of any more benefit in war to the United States than the battleships, if Germany had no ships to destroy——

Admiral FULLAM. I understand what you are getting at, Senator. The Germans lost about 30 or 40 of their submarines by attack from submarines. The English and American submarines and allied submarines sank about 30 or 40 of the German submarines. If we had had plenty of submarines we would have materially combated Germany's submarine policy generally.

Senator BALL. You think the submarine is more deadly to submarines than the destroyer?

Admiral FULLAM. No; I did not say that. I do not say anything against the destroyer. I am mighty glad we have those 300 destroyers. I believe, sir, that if we took those 300 destroyers in our Navy and put the lads on board that we have in our Navy, and would give them full crews and skilled torpedo men, that there will no navy go monkeying around us without thinking twice. We have the lads, we have the men that can take those 300 destroyers and make any fleet sit up and take notice, even without a battle cruiser. We have an overwhelming fleet of destroyers.

Senator SWANSON. You believe in a defensive fleet?

Admiral FULLAM. No, sir; I believe in offensive first, last, and all the time.

In a lecture delivered at the Naval War College by Capt. T. C. Hart, United States Navy, we find the following. This is to show you why the submarine did not attack our convoys and did not attempt to sink battleships during the war. This is a lecture delivered by Capt. Hart at the Naval War College recently:

> It has been learned from captured instructions, from quizzing prisoners from German submarines, and from evidence since the armistice that the criterion of efficiency held up to them was the amount of tonnage put on the bottom; all the promotions, decorations, etc., were based on that. They were told what kind of ships counted most from their standpoint; at the head of their list were tankers; and warships did not stand high. Incidentally, although torpedoes from German submarines accounted for 62 of the 134 surface ships that the British Navy lost and 8 large French and Italian ships, submarines seem rarely to have gone out of their way to make such attacks. It was all a matter of estimate; they reasoned that they would win the war by the destruction of merchant tonnage. Their submarines having run the gauntlet to their operating grounds strove to put down a ship with every torpedo; they could hope to do that only with easy shots; and they found they could stay out long enough to get an easy shot for each torpedo. A transport coming west was an easier shot than while going east because she was not strongly escorted, and they estimated that in the long run it wouldn't make much difference whether she was loaded or not; at least not enough difference to make it profitable to face extra risk.

In other words, the German submarines did not attempt to sink men-of-war. They did not pretend to waste ammunition and let

their shots go to waste when they could get decorations and promotion by sending helpless merchantmen to the bottom in the one mission which they had, namely, to starve England. It was Von Hindenberg's opinion in December, 1916, and he so told the Kaiser that Germany could bring Great Britain to starvation in six months if she would concentrate her submarine warfare, and having started to do it they were not going to be fools enough to change their mission and go to fighting destroyers and surface vessels when they could go and plunk a torpedo very easily into a merchant ship and contribute to the starvation of England.

Senator BALL. What would have been the moral effect if they had?

Admiral FULLAM. I am coming to that.

Senator SWANSON. Do you think that starvation in this country is a problem that we would ever have to consider—an attempt by an enemy to starve this country?

Admiral FULLAM. No; we can not be starved.

Senator SWANSON. Therefore the problem of warfare is different with us from what it is with England?

Admiral FULLAM. Yes, sir. I am coming to that later.

Senator SWANSON. How about a battleship attacking New York or some seaport on the southern coast?

Admiral FULLAM. If a battleship came around our coast, if we would send some submarines and airplanes out against her, she will get away. If she wants to bombard New York, the best way would be to send an airplane carrier——

Senator SWANSON. Would it not be better to have a battleship? Which would you feel safer, if you were in New York and you were attacked by a fleet of battleships, if you were defending with a fleet of battleships or with aircraft and submarines?

Admiral FULLAM. If the enemy had airplanes and submarines, I should feel very much safer if I were with the enemy.

Senator HALE. Without battleships?

Admiral FULLAM. Yes, sir.

A study of Capt. Hart's statement is essential to a knowledge of what the submarines did and are capable of doing. It appears that they sank 62 English men-of-war and 8 large French and Italian ships—70 in all, or more than half of the men-of-war that were lost. And yet it was not their first mission to attack fighting ships.

It is frequently stated that the torpedo sank but one British battleship—the *Marlborough*—at Jutland. Granted. But gunfire sank but one German battleship—the old *Pommern*. As far as battleships were concerned, therefore, the torpedo and the guns were equal.

Senator BALL. Did not the guns put more out of commission than the submarines did?

Admiral FULLAM. No; the battleships did not put them out of commission.

Senator BALL. I am talking about the fleet in general.

Admiral FULLAM. I am coming to that.

The truth is that battleships proper were not seriously engaged in the Battle of Jutland. The battle was largely between battle cruisers and scouting forces. The British lost three battle cruisers by gunfire, and three of the German battle cruisers were badly bat-

tered. Of these the *Lutzow* sank. She was hit by a torpedo as well as by guns, and the *Seydlitz* was also torpedoed.

It is important in this connection to note that Admiral Jellicoe showed proper respect for the torpedo by turning away for 10 minutes when attacked by a German flotilla. He was not alone in taking such precaution at Jutland and should not be criticized for it.

Senator WALSH of Montana. He has been severely criticized.

Admiral FULLAM. Yes; he has by parlor strategists, who can sit at a table like this, with all the maps, with all the positions, with the ships prettily plotted there, with all the knowledge which Admiral Jellicoe did not have, in a nice comfortable library, and these strategists will say that this admiral, on his bridge there, who could not see 3 miles, who did not know where anything was much, made a mistake. I submit to you, sir, that an admiral ought not to be subjected to that kind of criticism.

Senator WALSH of Montana. You think it is not well founded?

Admiral FULLAM. Well, no. I think it is a very proper thing for everybody to study that battle and to be interested in it and to form his own conclusions. But I think he ought to be a little careful before he goes to work and criticises severely the action of the man who had the responsibility there, and who could see very little in the mists and conditions that existed. Neither one of them could see the other half the time.

Senator WALSH of Montana. That is practically a normal condition in the North Sea, is it not?

Admiral FULLAM. Yes, sir.

Senator WALSH of Montana. One must take those things into consideration.

The CHAIRMAN. Let us reserve our opinion as to Admiral Jellicoe.

Admiral FULLAM. Recent reports show that Van Hipper's ships turned away from British destroyers several times, and, in his latest comment on the battle, Von Shier states that he did not return to the attack at night nor again early in the morning because he feared that the British destroyers which had not expended their torpedoes in the day action might come out of the darkness in the mist of the morning and attack his battleships. Thus we see that, even admitting that few battleships were sunk by torpedoes, their use, or threatened use, contributed to make the battle indecisive.

Senator HALE. That was torpedoes or destroyers?

Admiral FULLAM. Yes, sir.

Senator HALE. Not submarines?

Admiral FULLAM. Yes, sir.

Senator KING. May I inquire whether or not submarines and torpedoes were as well known, and their efficiency as well developed, or if they were developed to as high a degree of efficiency, at the time of the Battle of Jutland, as later? In other words, was not the torpedo and was not the submarine rather in their incipient stages in 1916 when the Battle of Jutland was fought?

Admiral FULLAM. The submarine was developed a good deal after that—but not very much.

Senator HALE. But the torpedoes were practically as well known as now?

Admiral FULLAM. Practically; submarines took little part in the Jutland battle. But one can not forget that the two powerful battle

fleets, quite intact, returned to their bases on June 1, 1916, and awaited there until the armistice for the battle which never came; while the submarine, regardless of the battle fleets of five great nations, proceeded to "command the sea" for more than a year, bringing England to the verge of starvation. Does this record put a naval crown upon the battleship or upon the submarine? Which deserves the reward in the show-down?

A consideration of all of these facts is respectfully submitted to those who, shall we say blindly, adhere to the 1916 program without reservations. A program—a child born during the battle of Jutland, we might say, ignores the awful events that followed its birth, and continues to live in comparative indifference to the daily lessons and teachings of the past five years.

The failure at Gallipoli: The Gallipoli campaign is a good example of the possible uses of submarines and of air forces. I would like to ask anybody here if the Turks had had submarines and air forces, could the English transports have run up to the beach and landed their men in safety? Will any naval officer say that such a thing would be possible? Would battleships have protected the landing against submarines and airplanes? If not, why not?

Now, let us take the other side: Suppose the British had had a strong air force with heavy bombing planes and torpedo planes at Gallipoli. Would not their chances of driving the Turks from that narrow peninsula have been much better? Would they not have saved thousands of brave men, needlessly sacrificed? The history of warfare proves that the fire of guns from fleets can not reduce forts; but heavy bombs might have done so. The British battleships at Gallipoli accomplished little. To be sure, the attempts of the English to bomb the *Goshen* and *Breslau* failed, but it is said the failure was due to small and improvised bombs. The English air forces were totally inadequate.

A careful study of this disastrous campaign uncovers the weakness of battleships in the work of reducing fortifications, and in the attempt to land and support invading forces. At the same time it demonstrates the vital necessity for submarines and aircraft, both in landing and in repelling a landing.

The bugbear of invasion: Recent developments in the offensive and defensive attributes of aviation, mines, torpedoes, and submarines conspire to make it impossible to send large armies across the Atlantic or the Pacific in helpless transports, however they may be escorted, against any nation properly supplied with these weapons of under-water and above-water attack and defense. In other words, it would appear that large armies will be employed hereafter only in continental, not in intercontinental, wars. The United States can not be invaded from Europe or Asia. Similarly we can not safely invade European or Asiatic countries. The size of our Army, after properly garrisoning our far-away possessions, may therefore be determined by the probable dangers at home or on the American Continent. This statement challenges contradiction.

The fact that we sent 2,000,000 men to France has been cited to prove that the submarine is not very dangerous. This is a fallacy. Our men escaped simply because our transports going east were not attacked as a rule. Five returning transports were attacked because they were not strongly protected. It is known now that U-boat cap-

tains were rewarded and be-medaled on the basis of the tonnage they sent to the bottom. It was their mission to starve England. This was the one object of unrestricted warfare.

Senator HALE. They attacked transports, however, whenever they got a chance, did they not?

Admiral FULLAM. No, sir; not going east.

Senator HALE. Going west?

Admiral FULLAM. Not going east. Going west if they were unprotected.

Senator HALE. They only got five in the whole period?

Admiral FULLAM. They did not attack them.

Senator HALE. Why not?

Admiral FULLAM. Because they were starving England, Senator. As I told you they got medals; they were plastered with iron crosses all over both their breasts.

Senator HALE. Were they told not to attack transports going west?

Admiral FULLAM. They did attack a few.

Senator HALE. Therefore, if they did attack a few, it was their policy to attack as many as they could?

Admiral FULLAM. When they were helpless.

Senator HALE. And they only attacked and got five?

Admiral FULLAM. Yes, sir; they did contrive to do that.

Senator WALSH of Montana. The argument was, as I understood, that they did not want to waste their torpedoes.

Admiral FULLAM. They were starving England; that was their mission.

Senator LODGE. It would seem as if it would have been of some importance to them to stop the troops going to Europe.

Admiral FULLAM. They could not do two things simultaneously, at once, Senator.

Senator LODGE. They thought that the attempt to starve England, in which they were failing, was better than to try and stop the troops?

Admiral FULLAM. Yes, sir; that was the whole business. They made every torpedo and every shot count to that end. They only attacked men-of-war when they were cornered, or under favorable conditions. They had short-range torpedoes. To fight men-of-war would have been foolish. It would have expended their ammunition uselessly and defeated the main purpose: to starve England.

Had the situation been different, and had they used long-range torpedoes, can anybody doubt that they would have attacked our big convoys at long range with frightful effect? Will any naval officer in his right mind deny this? And had they done so, what would have been the effect upon the people of the United States after a few transports carrying thousands of men had been sunk?

It is wrong, therefore, to deceive the people of the United States by the cry that we must have a big surface Navy to repel invasion. Previous to the World War invasion of the United States would have been perfectly possible had an enemy possessed a surface navy strong enough to defeat our fleet and command the sea under conditions existing at that time. But we made no preparations against it.

Neither the administration nor the people could be aroused by the danger when it really existed. Our Army was small and our Navy inadequate, but the Nation refused to lift a finger.

But to-day we hear the cry of "Wolf! Wolf!" And yet we may assert that with an Army and Navy smaller than in 1914—yes; even without any surface Navy at all—no nation could land a large army on the coast of the United States, and I want to emphasize that, either in the Atlantic or Pacific, if we were supplied with an efficient submarine fleet and a powerful air force. The attacking fleet with its helpless transports could not bring with it across the sea an air force sufficiently strong to maintain the command of the air above itself. Its air defense could be smothered and its ships and its army could be subjected to a merciless attack from the air above and from the sea below. The enemy could not land. It would be impossible and inhuman, and I want to emphasize that. The submarine and the air force, therefore, discourage war overseas, especially as far as the transport of armies is concerned. In this respect they are elements of peace.

Senator BALL. The air force could be purely a land air force.

Admiral FULLAM. If the Navy had it you could go out some distance.

Senator BALL. It would not be necessary: the land forces could do it as well.

Admiral FULLAM. You had better begin to knock them to pieces before they get to the land. But you can put it that way. I have no objection.

Senator BALL. The land forces could do it as well.

Admiral FULLAM. Yes.

Senator BALL. As far as that is concerned, why have any Navy?

Admiral FULLAM. I want the air force up with the fleet, if the enemy has a surface fleet. I am not giving up the surface fleet. I am only very humbly and with very much embarrassment trying to show that the surface fleets, that I love so dearly, needs to be protected.

Senator LODGE. Nobody on this committee is arguing against that proposition that I am aware of.

Admiral FULLAM. I do not assume so.

Senator SWANSON. We recognize fully the importance of both the submarine air craft and destroyers.

Admiral FULLAM. Yes, sir.

It would appear that this self-evident fact, demonstrated by the World War and the Gallipoli campaign, is ignored alike by many naval officers and legislators in framing our building program. They insist on building the most expensive and the least useful craft, while depriving us of the submarine and air forces that are vital in modern war. They build upon the conditions of 1916. They are blind to the conditions of 1921. They would give us not a strong Navy, but a weak one.

What I mean to say is this, that we have no air force now. And we hear it said that there is war in the air; that we may have war pretty soon.

Senator SWANSON. How much of an expenditure would you recommend?

Admiral FULLAM. I would rather not say. I do not want to go into that.

Senator HALE. You have already stated it would take $120,000,000.

Admiral FULLAM. Yes. A submarine man made the statement to me that we needed at least $100,000,000 for submarines, and the best authority on air navigation I know of anywhere said we needed about $120,000,000.

Senator HALE. For two air carriers and their complements?

Admiral FULLAM. Yes, sir.

Senator SWANSON. That would be $220,000,000 for submarines and air forces?

Admiral FULLAM. That is a mere estimate. Please do not assume that I am giving it exactly. I leave that to you.

The navy of the future: In the light of their war experience, and from a practical consideration of modern weapons, naval minds in Germany are not bemoaning the loss of their surface fleet. And why should they? The high seas fleet fought a good fight at Jutland, but it was glad to get back to its base. It gave little return for the billions spent upon it, whereas their submarine fleet nearly won the war.

Admiral von Scheer, who commanded at Jutland, has recently expressed the following opinions:

1. Surface ships are tremendously expensive, and yet they are very vulnerable.

2. Hitherto only a few nations could afford these big ships, and so they ruled the seas. But the submarine has knocked all this into a cocked hat, and "fear of the British fleet as a fighting weapon has gone."

3. That a good surface fleet can no longer protect a coast or overseas commerce.

4. That submarines can best defend or attack a coast and can best protect or destroy commerce.

5. In short an adequate submarine navy will enable a comparatively weak nation to pursue an overseas policy "without worrying about a surface fleet."

Senator HALE. The submarine can best attack a coast?

Admiral FULLAM. Yes; because it will prevent any enemy navy from coming away from that coast. The battleship can not attack a coast. A battleship is not supposed to attack a coast. The battle fleet is to roam the seas, not to defend a coast nor to attack a coast.

Senator HALE. You think the submarines can coop up a fleet?

Admiral FULLAM. Yes, sir. After you get all through with me—I do not want to take so much of your time—I wish you would get some of the admirals from the Navy Department, the General Board and elsewhere and ask them in executive session, in secret, what they would do with our battle fleet if we had a war with a certain power in the Pacific, or with a certain power in the Atlantic, where they would send it, if those powers had——

Senator LODGE. The trouble with your argument, it seems to me, is that you are proceeding on the assumption that we are going to do nothing about the air and nothing about submarines. We are as capable of doing it as they are.

Admiral FULLAM. Senator, if I have created that impression, please pardon me.

Senator LODGE. That seems to me to be the whole drift of your argument.

Admiral FULLAM. I have made a mistake, then, because the trend has been so strongly in this 1916 program toward the emphasizing of what I think to be a needless, a too great addition to a fleet of 22 dreadnaughts, 10 scout cruisers, and 300 destroyers which I think just now will suffice. But they want to go and build all the rest of them, spend three or four hundred million dollars on them, when with but $220,000,000 we can build the necessary requirement for these two other planes. That is all, Senator. You pay your money and you take your choice. That is all it is with me.

These conclusions of Von Scheer are shared by many distinguished officers and statesmen in England and elsewhere. For instance, Lord Rothmere, formerly director of England's air force, makes the following assertions in an article entitled "The folly of the big battleship."

Referring to the United States and Japan:

1. They are obviously building against each other and not against us. Great Britain can not afford to spend money on naval construction at present.

Senator HALE. Who is saying that?

Admiral FULLAM. Lord Rothmere, the former director of England's naval air forces.

2. If the United States and Japan persist in pursuing antiquated forms of warfare, that is no proof that capital ships will survive.

3. No nation henceforth will enjoy naval supremacy. It is a nasty pill, but we must swallow it.

Senator KING. Is that still his statement?

Admiral FULLAM. He has just stated it. Von Scheer says the same thing. He says the little nation has now come into its own; that without a surface fleet at all they can take submarines and air forces, and they need not be afraid of any enemy fleet coming around its coast.

These assertions, based on experience in the World War—that submarines and aviation have revolutionized naval warfare—can not be ignored. The gist of it is that surface ships are between two dangerous fires—one from below and the other from above.

Are these modern theories being intelligently considered in Washington by those who are urging the unrevised completion of the "building program of 1916"—a program five years old?

The opinion of Chief Constructor Taylor, United States Navy. In an article published recently by the Franklin Institute, Rear Admiral Taylor, Chief Constructor of the Navy, makes the follow predictions:

Although we must conclude that the present tendency is toward increased size and cost, one can not overlook the fact that this very tendency, under the present financial, economic, and political conditions in the world, may actually result in the long run the disappearance from future building programs of these very types and the substitution for them of smaller and cheaper units made possible by new developments in science and engineering.

To meet this condition there never was more need than at the present time of vision and imagination on the part of the fighting forces afloat and the naval designers ashore, for that nation which can develop weapons which will render obsolete the present great ships and can substitute for them a smaller and cheaper unit, capable of defeating them, will win in the new area of the command of the seas, which this war has shown is so important to ultimate victory.

Senator LODGE. Do you call a plane carrier a cheap unit?

Admiral FULLAM. Senator, you have got me there. No, sir; but it carries with it a cheap unit.

Senator LODGE. You can not have planes without carriers.

Admiral FULLAM. Not to go far to sea; no, sir.

From this it is plain that our chief constructor sees the handwriting on the wall. He expresses himself cautiously, which is natural for an officer in his position. He is liberal and wise.

Admiral TAYLOR. It seems to me you are quoting from the Tribune and not from me.

Admiral FULLAM. No, sir: this is from the Franklin Institute article.

Admiral TAYLOR. That was from an article in the Tribune.

Admiral FULLAM. Gentlemen, may I call your attention to just one thing, right here, which is not in my statement. Sir John Fisher, the British admiral, was the father of the dreadnaught. Before building a dreadnaught, instead of imposing his opinion and his will, as he might have done, upon the British Admiralty, he called together a body of naval officers of distinction, and of civilians as well, great civilian and naval architects, naval constructors, experienced civilian builders, and discussed with these men whether the dreadnaught was a good type. They decided with him that it was, and he built it. It was the start of the dreadnaught era. I think it was in 1903 or 1904, if I am right. Before he died in 1919 Sir John Fisher said that aviation and the submarine had sounded the doom of the dreadnaught, and he said "scrap the lot; the navy goes up into the air." I do not agree with it, but I am merely telling you what he said.

Not only that, but Sir Percy Scott did more to make the dreadnaught powerful, in conjunction with Fiske and Sims than any other three men in the world to-day. Fiske invented the telescopic sight that enabled guns to shoot long distances. Percy Scott showed how to use the telescopic sight in gunnery training. And Sims got from Percy Scott the system that taught the British Navy how to shoot. Up to that time it had not been able to hit the side of a barn. Our navy at Santiago made just 3 per cent of hits—3 per cent. Sims took Scott's system and introduced it into our Navy, and that made the deadnaught this terrible power that it has proved to be.

Now then, it is a curious thing that Fisher and Scott and Fiske and Sims, all those four men that influenced not only the efficiency of the British Navy but our own, have either come out flat-footed to say that the deadnaught is doomed, or they see that is has limitations, and that we had better discuss the matter——

Senator HALE. Admiral Fiske and Admiral Sims take the ground that we ought not to stop in our program of building.

Admiral FULLAM. That is all right. I feel in sympathy with them, because we have got only a surface navy. The navy can not jump overboard off the only thing we have got and go to swimming around the Atlantic and Pacific Oceans, when we have neither an air force nor a submarine force to get aboard of. We can not do it. That is why I advocate the completion of the ships which would give us 22 dreadnaughts. I do not want to abolish the battleship. I want the 22 dreadnaughts, the 10 scout cruisers, and 300 destroyers. I am not at all afraid as far as the surface navy goes, but I

think we had better get busy and look out for these other two places, that is all; nothing more.

Admiral Sir Percy Scott, eminent naval authority, has come out in opposition to the building of more battleships for the wars of the future and in favor of smaller craft and more attention to the auxiliary arms of the Navy. At least, that is the deduction drawn from a letter from him, which is published in the Evening Standard. In it he sums up the naval lessons learned in the war.

Sir Percy promises to enliven the discussion on British and world naval matters, some of his deductions being bound to excite hostility in certain quarters. He has just refused to appear before the committee on imperial defense and give his opinions on building small craft instead of battleships. He gave as his reason that he would be muzzled.

In his published letter he say that, naturally, Navy officers advocate the building of battleships, because if they did not they would commit professional suicide. He says the British learned the following things from the war:

If Germany had possessed more submarines at the beginning of the war, they would have won.

The German battleships were of no use to them.

The weapons that nearly defeated the allies were the mine and the torpedo.

The foremost of the British battleships in the Mediterranean were sunk.

After the appearance of the submarine in the Mediterranean, the British battleships, which had not been sent to the bottom did very little useful work. The British battleships could not get through the Dardanelles. They were stopped by mines and not by battleships. Our leviathan battleships in the North Sea did not bombard any of the enemy's fortifications or seaport towns or harbors. Assailants can hide themselves behind smoke screens. What is probably the most effective weapon against battleships was not employed during the war—the airplane with a torpedo. This new device can attack battleships both at sea and in harbor.

Senator HALE. Is not that somewhat conjectural?

Admiral FULLAM. I was going to give you an example.

It is not safe alone and must have nurses in the form of airplane and surface vessels to keep down submarines.

The British could not protect their commerce on the sea. In a war between a country with a long coast line, and battleships for defense, and another country with a large number of submarines, Sir Percy says an hour after hostilities were declared the country with the submarines would be sending them to trade routes, where they would be guided and advised as to the whereabouts of merchant vessels by water planes.

Other aircraft would drop torpedoes on battleships while the submarines would be planting mines at harbor entrances. He does not think any armada would dare pass five days at sea under such circumstances.

Senator LODGE. They did not succeed in hitting London very well; so I suppose it may be somewhat difficult to hit a rapidly moving vessel.

Admiral FULLAM. That may be true.

Senator LODGE. I do not say they are not going to do it. I want something to defend us in the interval.

Admiral FULLAM. You are quite right. I have an account of a recent experiment in England which I have not got in print here. It was at one of their harbors. Eight torpedo planes flew over the land preceded by a few bombing planes with smoke bombs. They dropped those smoke bombs around near the head of the torpedo plane, and the eight torpedo planes came along behind this screen and fired eight torpedoes at the English battleships anchored there, and six of those torpedoes took effect.

Senator LODGE. They were all anchored?

Admiral FULLAM. Yes, sir.

Senator LODGE. Was somebody shooting at the torpedo planes?

Admiral FULLAM. They could not see them. They got there before they knew it. They make 125 miles an hour.

Senator LODGE. Yes; I know that.

Senator HALE. Then, you know, they have been able to develop smoke screens for airplanes?

Admiral FULLAM. I am only telling you what took place. This was an article written by the editor of The Airplane, a leading air-nautical journal, sent over to this side, and it described this event. The event has been referred to by others. I have no doubt that in our Naval Intelligence Office they have a full account of it.

Furthermore, it has been intimated very strongly that England has a torpedo plane carrying a torpedo of tremendous power. I don't know about that. I am only bringing out these points because it is wise to consider them.

Senator HALE. But the testimony that we have had from Capt. Craven, the head of our naval aviation, is that we have not got smoke screens that airplanes can use, up to the present time.

Admiral FULLAM. I would not assume to discuss the matter with Capt. Craven, because he knows a great deal more about that sort of thing than I do.

Now, gentlemen, I have come to the final little chapter here. We are told we have got a fleet of dreadnaughts to guard us from war. Consider what our present fleet is doing. We have 16 dreadnaughts now.

The fleet of the United States is not merely a one-plane, or surface fleet, instead of a modern three-plane fleet as it should be, but it is unorganized and unprepared for war even as a one-plane force. Those two fleets are down there now in the Pacific. They have not an airplane with them. There are some airplanes that stay at the canal. There are a few submarines at the canal that have been recently inspected and are not hardly fit for peace maneuvers, let alone war maneuvers. This battle fleet has a comparatively small force of torpedo destroyers that are not in really war condition.

The battle fleet has been divided into two equal parts, the two parts being 5,000 miles distant from each other. The Navy Department has announced to naval recruits that this division of our only fighting surface fleet will be perpetuated, and that one part will go to Australia and the other to South Africa next June, thus increasing the distance between them to about 10,000 miles.

This division of our existing Navy violates the fundamental principles of naval strategy. As far as the naval strategy and naval

policy of the United States are concerned, Admiral Mahan lived, and, wrote in vain! The Navy Department has ignored him. In a military sense it is reprehensible to divide a strong force, but to divide a weak force is worse. It is claimed that our present 1-plane Navy is not strong enough, and yet the Navy Department deliberately divides this inadequate force. It is declared that we must be prepared for war and must add tremendously to our surface fleet, and yet the Navy Department proposes to separate its two fleets by a distance of 10,000 miles.

Senator LODGE. That is a question of operation, is it not, even if we had the submarines and torpedoes?

Admiral FULLAM. Yes, sir. It is only to show that if we are in danger of war, why don't we take what we have got and get it ready for war pretty quick. It is perilous.

Senator LODGE. That is a question of administration.

Admiral FULLAM. Yes, sir.

It is no exaggeration to state that if our present surface fleet is weak, if it needs to be doubled in strength, if there is danger of war within one or two years—if those things are true, then the division of this weak force imperils the Nation: it is a capital offense!

And it may therefore be asserted that this surface fleet should be immediately united: that it should be fully manned and drilled night and day as one fighting machine. Otherwise it will remain as it is now—unprepared for war. Moreover, it will take at least six months—more likely a year—to reassemble, reorganize, train, and prepare in all respects the battle fleet and torpedo flotillas of our surface fleet for war.

Instead of crying loudly for more dreadnaughts and more men, we should first prepare our existing forces for war. Sophistry alone can defend the present condition of our fleet.

The two parts might be attacked and defeated in detail. The existence of the Panama Canal is no defense for this blind policy. A few bombs might block the canal. This would be the first move of our enemy. Moreover, the united fleet of the United States should be stationed in the Pacific for the present. It is not needed in the Atlantic. We must learn immediately how to maintain the fleet in the Pacific. It is folly to say that our bases there are insufficient to maintain our fighting forces. If we can not maintain it there now in time of peace, how in the name of common sense can we hope to maintain it there in time of war? Is it impossible for us to wage a naval war in the Pacific? If so, what shall we do?

The Navy base at Alameda will not be finished in time to maintain a fleet in the Pacific if we wanted to maintain a war there in the Pacific.

Senator HALE. When?

Admiral FULLAM. I say it will not be finished in time.

Senator HALE. What do you mean by "in time"?

Admiral FULLAM. I say, if we are to have war in five years, if we are to have war in the Pacific, we have got to maintain this inadequate surface fleet, we have got to maintain it there now with the conditions that exist there. And the sooner we learn how to do it the better it will be for us.

That comes in in conjunction with this subject to this extent, that it is folly to come here and ask Congress and the people for 20 more

big fighting ships when we do not take those we have got and organize them and man them and drill them and get them ready for war that some people seem to think is right on top of us. I don't believe it. I don't believe there is any nation in Europe that can go to war with us, or that wants to go, unless we force it on them. Whether it is so on the other continent is for you to decide. If it is so over there then we had better use the forces we have.

I would most earnestly request you to let me show you one or two little things here, and then I do not want to take any more of your time. Here is an article written by a naval officer showing the attack of a three-plane fleet, how it is formed, when it moves. It has the battle cruisers and everything else in it, with airplanes, submarines, lots of destroyers, and lots of cruisers. It is a three-plane fleet. It is a wonderful description of a battle under modern conditions. I should like to submit that.

Now, sirs, if you will look at that. Talk about torpedoes attacking a fleet. Just imagine a submarine with a 10,000-yard torpedo coming along here. From a distance of 5 miles this torpedo is effective. If the fleet is advancing 15 miles an hour that torpedo could be fired at approximately a distance of 8 miles at this tremendous fleet, and I don't think a torpedo could get through a fleet formed in that way without hitting one of those ships. I don't believe you could get it through there.

Senator LODGE. There is lots of room in the ocean.

Admiral FULLAM. Yes, sir; but the battleships are occupying that room.

Senator LODGE. What is the distance between them in that fleet formation?

Admiral FULLAM. About 600 yards.

Senator LODGE. A torpedo might get through.

Admiral FULLAM. Yes, sir; but the ship is 600 feet long.

Senator LODGE. I understand.

Admiral FULLAM. So that one-third of your target is ships and other two-thirds is open water, and therefore you have one chance in three of hitting. It is well that Admiral Jellicoe turned away as he did. In doing so he presented the stern of his ships, and 20 torpedoes went through his line, and only one ship was sunk or hit. If he had not turned away there might have been more hits.

Senator WALSH of Montana. Did not a distinguished admiral say at one time "Damn the torpedoes"?

Admirel FULLAM. Yes, sir. They were mines, and he was going in a harbor and he could not have done anything else. There was no room to turn. It was fatal for him to stop or fatal for him to attempt to turn. He was not in the open sea. Farragut would never have attacked anything that could have sunk his ships and run deliberately into it if he had been in the open sea.

Now, just a minute. I do not want to take more of your time. As to attacking a fleet by the air force, Capt. Craven could tell you how he would do that. They come down the line from a height and the lateral dispersion will be small, because the deck plans of the ships will be about one-third of the whole column. Therefore your chance of hitting by a bomb from above in the line of march will be about one in three or four. Say it is 1 in 10. It is a pretty good chance of hitting.

Now, they say, if you are so high up, you can not hit anything. There is no reason why you should be high up. In the early morning or in varying conditions of weather, or just before dark the planes can come down very close, and they can go so speedily that they can drop these big thousand-pound bombs in a way that would make things very unpleasant for the people on board these ships.

Take the case of the bombing of the *Indiana*, where they merely laid the mine on deck——

Senator LODGE. That was tied up.

Admiral FULLAM. Yes, sir. It is merely to show the explosive effect; that is all. That is all that is necessary. The chance of hitting is something else. I don't know. It ought to be found out. If we would take our battle fleet out here and line it up as a battle fleet would have to be lined up and let the airplanes attack it with sandbag bombs, you would find out something about the chances of hitting.

The reason that appealed to me, sir, was that I saw 220 airplanes aloft at San Diego at one time, and they came over that harbor in successive waves, in battle formation, like flocks of geese. My ships were in there, and it made me sit up and take notice, and I just made up my mind that if those 220 planes, each of them had a good big bomb, going over, their chances of hitting might be very small, but I would just as leave not take the chances.

Senator LODGE. You were at anchor?

Admiral FULLAM. Yes, sir; but whether it makes it more difficult being under way is for experiment to determine.

Senator SWANSON. How effective are antiaircraft guns against these airplanes?

Admiral FULLAM. They brought down one-tenth of 1 per cent of the planes they used them against on the battle front in France. If you had to keep your crew on a battleship with eyes glued to aircraft night and day, they are going to be up against it. You can see a ship from up in the air much more easily than the ship can see the thing in the air. The ship is better outlined even after night on the surface of the water very clearly.

There is one other thing I did not refer to except in an explanatory way, and that is that you can have a certain number of your airplanes with mines, and if they see a fleet coming they can cut across the bows of that fleet and sow the ocean with mines in front of it. While some airplanes are dropping bombs and other torpedo planes are making their attack, others could be assigned to planting heavy mines on the sea right in front of the path of the fleet, so that the fleet has got to go through a nest of mines as well as it has got to protect itself from bombs and torpedo planes.

I am merely pointing out why the battle fleet has got to be protected. If it loses the control of the air above it, if the control of the air above it is completely maintained by the enemy, I submit to you that it is a pretty serious matter.

I want to say, gentlemen, as I conclude, that I am awfully embarrassed, because, for a naval officer to get up in the presence of his fellows and say anything to depreciate the kind of craft that he has loved and served in all his life is a very disagreeable thing.

Senator SWANSON. Your idea is that the Navy should control the air, control the surface of the sea, and control under the sea?

Admiral FULLAM. Yes, sir.

Senator SWANSON. If it is defective in either one of those elements it is dangerous.

Admiral FULLAM. Yes, sir. We have talked previously about a well-rounded surface fleet. We wanted battleships, we wanted battle cruisers, we wanted cruisers, we wanted destroyers, and all those things. Now, we have got to get a fleet here that is on three planes, that has got to be well balanced.

The CHAIRMAN. Have you more than one copy of this battle-fleet formation to which you have referred?

Admiral FULLAM. Yes, sir.

The CHAIRMAN. Leave several copies for the members of the committee.

Admiral FULLAM. I wish you would look at it.

The CHAIRMAN. Have you about concluded, Admiral?

Admiral FULLAM. Yes, sir; I am afraid I have taken too much of your time, and I did not want to do it. But I do want once more to impress upon you that I have not said that we must scrap our fleet. I want those 22 battleships, those 10 scout cruisers, and those 300 destroyers to go with the kind of officers and men that we have got in the Navy, and I know what they are, because I have instructed nearly all of them, by Jove. There is not one here that I did not instruct—right there in that row.

Senator HALE. Are you qualified as an expert to testify as to the degree of completion that has been reached in aerial experimentation—in bombing and torpedoes?

Admiral FULLAM. Well, only by what I have been told by those who have.

Senator HALE. You yourself are not an expert on that?

Admiral FULLAM. I do not pretend to be an expert.

Senator HALE. You do not know how far along we have gotten with experiments?

Admiral FULLAM. I do not claim to be an expert at all. It is only that I have gotten this information from officers whom I know personally to be absolutely reliable, and I do not believe there are any officers in the Navy who know any more about these particular things than they do. I would not myself have made the statements until I had consulted them.

Senator HALE. A good many officers have testified that we have not reached a finish in these matters, and we do not know just what we can do with airplanes.

Admiral FULLAM. Yes, sir.

Senator HALE. Have you any evidence to the contrary that you can supply that we are far enough along in aerial matters to justify us in going ahead?

Senator KING. You mean in aerial matters?

Senator HALE. Yes. Have you any other evidence than that we have had before the committee?

Admiral FULLAM. You see, I am very much up in the air right now. I don't know what you have had before the committee. I have only tried, in coming to you as I have, to give you all the information I have been able to obtain, and from it it appears that our air force is totally inadequate, our submarine force is totally inadequate.

in the light of modern conditions, as developed in the late war and as developed since the late war. That is all I can say.

Senator HALE. We all want to improve aerial conditions. But we want to know whether we are justified in giving up what we have and going ahead.

The CHAIRMAN. That is what he has been talking about in the last hour and a quarter.

Senator BALL. Have you any particular information that we have not got?

Admiral FULLAM. As far as particulars go, I would have to leave that to the officers who are in charge of aviation. I know that this question of aviation was brought up in the Navy Department in my presence in 1913, and we did not get anywhere. We went into the war with only 45 aviators in the Navy. Our lads got over there and it was a year before they got a plane built in America to do anything with. And they were just getting started when the war was over. I think that aviation has been between the devil and deep sea. It has had no friend. It has been sprinkled uniformly all around the Navy Department, in half a dozen bureaus, and no one man was at the head of it, and nobody could coordinate all these things.

The CHAIRMAN. You want to get to the deep sea, don't you?

Admiral FULLAM. I want to be able to send the enemy to the bottom of the deep sea, down with Mr. McGinty.

Senator LODGE. Admiral, I have got to get back to the floor, and if the chairman will allow me, I would like to ask a few questions. The committee, as I understand it, from the report they made the other day, are entirely agreed with the Navy on a development both under the sea and in the air. I do not think there is any question about it, and I do not think anybody disputes the necessity of doing it. One of the things we recommended in the report was that instead of making contracts for 12 destroyers and 6 submarines, which are not yet contracted for, to turn that money, which was $55,000,000 toward the building of plane carriers. I do not think there is any difference of opinion in the committee at all as to the necessity of developing those branches of the service.

The question that is before the committee is what we shall do with the 1916 program now. Part of the dreadnaughts have been built, at least, they are very near completion. Those, I understand you to say we had better complete, bringing the number up to 22.

Senator HALE. That does not mean all the dreadnaughts.

Senator LODGE. No. I say those that are advanced to finish them, and bring the number up to 22 all told.

Admiral FULLAM. Yes, sir; as quickly as possible.

Senator LODGE. The committee has felt, I know I have felt, that we had no battle cruisers, and that that was a deficiency in the surface portion of our fleet. And Admiral Sims, in his testimony here, was very emphatic that those six battle cruisers ought to be built in order to complete the surface fleet.

As to the others, we are anxious to do all we can in regard to the air, and under the water, as I understand it. But in the meantime, we do not want to leave the country undefended, and there does not seem to be anything better with which to defend it at the present moment than the fleet. Is there?

Admiral FULLAM. No, sir. That is why I want to get the fleet we have gotten ready for war right away; quick.

Senator LODGE. That is a question of administration.

Admiral FULLAM. And I know Admiral Coontz is pining to do it, too.

Senator LODGE. We are trying here to legislate simply with the view to construction. That is all the committee is engaged on. We have nothing to do with operation, fortunately.

The CHAIRMAN. I think this committee will agree with Admiral Fullam that our fleet shall be an efficient one.

Senator LODGE. Absolutely; there can not be two opinions about it. It does not behoove a layman to say it, but I have a sort of feeling that I think there ought to be only one fleet, and I feel just now that it ought to be in the Pacific. That is only a layman's opinion. I do not think there is any danger in the Atlantic.

But I want to know how we can best get through this time until these airplanes and torpedoes are perfected, which admittedly, they are not yet.

Admiral FULLAM. Well, Senator, if those battle cruisers were further along, I would not have butted in here with the suggestion that it might be well to suspend the work on them for six months.

Senator LODGE. You know better than I do the expense there is attached to suspending work.

Admiral FULLAM. I understand. To stop the work on some of those ships would result in great loss—ten or fifteen million.

Senator LODGE. Twenty-five.

Admiral FULLAM. Or twenty-five. We might lose twenty-five million and we might make two hundred million. That is the way I look at it. If they have got to be completed, it will take two or three years to complete them. By the time they are completed the advances in aviation and submarines, which are still in their infancy, may be such that we will find we have made a mistake.

The CHAIRMAN. The same thing applies to any craft, does it not? If we build submarines or airplanes, by the time we get them completed there may be improved types that will make them obsolete?

Admiral FULLAM. But the battleship has been developed about to the limit of its power, as Admiral Taylor says.

Admiral TAYLOR. I beg your pardon; I did not say that.

Admiral FULLAM. I meant to say you admitted that in the future we may be forced to smaller units.

Admiral TAYLOR. We may.

Admiral FULLAM. We may be; that is all. I am going on the main problem myself—the fact that before you got these battle cruisers completed that it might be proved that some change in their design would be desirable. I suppose construction may have provided them with protected decks, so that one bomb won't blow them all to smithereens, as it did the *Indiana*.

Senator KING. Will we know very much more in six months than we know now?

Admiral FULLAM. Well, we might. I think things are going so fast in aviation that in six months we might know a good deal. Furthermore, I think in six months, when the new administration comes into power, it is very possible that there may be some arrangement

between nations which will possibly make it less of a chance for war than now.

I put myself into this whole case as a citizen of the United States. I think if naval officers do not consider themselves first, last, and above all things citizens of the United States in discussing these things the first thing they know they won't know anything at all; they will find the people will lose confidence in them. I know that the people are taxed to the limit. I know that it is a mistake for us to go into any building program that does not put that money where it will give the best possible return. That is all.

Now, as to whether you finish these battle cruisers, I would rather draw out of it, except that I did feel if they are only 3 per cent completed we could afford to stop. Personally I would not drive a rivet in one of them, or in those 5 battleships; I would stop with those 11 ships, and I would take those 22 and mold them into a fighting machine much stronger than Von Scheer's at the Battle of Jutland, very much stronger; I would give them an air force and a submarine force, and then I would not worry at all.

Senator LODGE. Let me come back to the line of questions which I was asking. Your opinion is clear that we ought to stop work on six cruisers for six months?

Admiral FULLAM. I say temporarily.

Senator LODGE. Oh, yes; temporarily.

Admiral FULLAM. We might have to build them later on, Senator.

Senator LODGE. If we are going to build them at all we had better keep on at it. That is merely my own interjection. But your opinion is that we had better stop work on them for the present, at least?

Admiral FULLAM. Yes, sir.

Senator LODGE. We are building a number of submarines.

Admiral FULLAM. I think that was a mistake to stop building submarines, as I said in my paper.

Senator LODGE. I am not suggesting that. My point is that we are covering the point about the undersea vessel in this program. Assuming that we are building the best submarine that can be built—of course, that I can not tell about——

The CHAIRMAN. We added to the program in 1917, 20 submarines.

Senator LODGE. Yes. Admiral Taylor, am I wrong in saying we have three fleet submarines?

Admiral TAYLOR. We have three fleet submarines practically completed, and three more under construction.

Senator LODGE. Those are the largest sea-going submarines?

Admiral TAYLOR. The last three are the largest.

Senator LODGE. The latest thing in submarines; is that true?

Admiral TAYLOR. We think they are as good as can be built.

Senator LODGE. We are also building some of the smaller type?

Admiral TAYLOR. Yes, sir.

Senator LODGE. Therefore that branch that you desire to develop is in process of development, and if we do not get the latest and most proficient submarine it is not the fault of the committee.

Now, what remains is the air. They are trying to take care of the surface fleet and under the water. What remains is the air. There the committee is very anxious to develop aviation and develop plane carriers. It is not a cheap thing to do; it is extraordinarily expensive. There is no saving of money, but it must be done, in my judgment.

But I do not think any of the countries have gotten very far, as far as I can learn, in regard to plane carriers. We want to do that.

What I am trying to get at, and what, if you will allow me to say so, you did not quite meet, is what we are to do in the interval. Are we not to keep up our fleet on the surface? Ought we not to keep it up?

Admiral FULLAM. Why, Senator, yes, sir; and I have said so. I would take these 22 dreadnaughts, these 300 destroyers, and these 10 scout cruisers and I would rush them to a completion just as quickly as possible, get them all together, rally the officers and men aboard of them and cheer them up, and tell them they have got to get ready for the war in six weeks, and let them hump themselves.

Senator LODGE. That answers my question. We have got to have a fleet.

Admiral FULLAM. Yes, sir.

Senator LODGE. To carry us over the interval before we can perfect the air branch.

Admiral FULLAM. Yes, sir.

Senator LODGE. I want to perfect the air branch, but I think that will take some time, and I think it will take other nations some time. But we can do it as well as they can. It would seem to me as if your argument proceeded a little on the theory, if I may mention a childish anecdote. I was describing to my father once when I was a small boy what I was going to do should a burglar enter the house. I had perfect arrangements for shooting him and destroying him, and my father brought me down to hardpan by saying, "What do you think the burglar is going to be doing." It seems to me the little defect in your argument is that you are imagining for the enemy these perfect fleets and do not seem to think we are going to do anything.

Admiral FULLAM. But, my dear Senator, I do not see how you can get any such idea from what I read.

Senator LODGE. It seemed to me your argument was largely based on that.

Admiral FULLAM. Not at all. I start right out here by providing for 22 dreadnaughts and for 10 scout cruisers.

Senator HALE. You mean by that, keeping up those we have got?

Senator SWANSON. The battle cruiser seems to be the main point. Suppose we should have a war with either one of two of the largest naval powers; that one has four large battle cruisers which go about 30 knots an hour, and they are opposed to our battleships in the Pacific. Suppose you were in command of the fleet and did not have any battle cruisers that could chase them down. They could scour the entire sea and your battleships could not catch them. They would drive commerce out of the Pacific. How, without some battle cruisers, could you wage war against those?

Admiral FULLAM. In the first place I would not have the commerce running around.

Senator SWANSON. You would stop the commerce?

Admiral FULLAM. Yes; until those battle cruisers had been destroyed.

Senator SWANSON. How are you going to catch those battle cruisers?

Admiral FULLAM. Senator, those battle cruisers could not get far from home without having to go back and get coal. If they came

fussing around our coast we would plunk them full of holes and bomb them from the top side.

Senator SWANSON. How would you catch them?

Admiral FULLAM. With airplanes. If they did not come within reach we could let them roam the seas at their will and waste coal.

Senator SWANSON. That is with the idea that we would just abandon our entire commerce, have an embargo, have no trade on the ocean and simply live at home and let them drive us from the sea?

Senator LODGE. That is the old Jeffersonian idea of stopping our commerce in order to save it.

Senator SWANSON. The committee's idea, I think, is to have battle cruisers that will sail as fast as those of England or Japan and have as large guns, so that our commerce will not be driven off the sea.

Admiral FULLAM. If you give us the airplane carrier, I think the airplane carrier will be equal to the battleships.

Senator SWANSON. You are the only person I have heard of that thinks the battle cruisers should be abandoned.

Admiral FULLAM. Senator, I merely suggested stopping them because they are only 3 per cent completed.

Senator SWANSON. I think it has been practically the opinion of everybody that regardless of their state of completion, that our fleet should not be absolutely without battle cruisers.

Admiral FULLAM. I do not think so, because we have 300 destroyers, and I believe if we sent 100 destroyers after those 6 battle cruisers, those 6 battle cruisers would go back home.

Admiral TAYLOR. Our experience was we found they were unable to keep up over 12 knots.

Admiral FULLAM. You mean the destroyers?

Admiral TAYLOR. Yes.

Senator SWANSON. The battle cruisers go about 30 knots, and the destroyers slow down too much?

Admiral TAYLOR. Our latest destroyers which were with the Balfour convoy had to slow down—or rather the convoy was slowed down because of the speed of the destroyers. In smooth water it is all right. But as soon as the water gets rough, the small vessel necessarily slows down.

The CHAIRMAN. I suggest that our time is almost exhausted, that Admiral Fullam has covered this entire subject pretty thoroughly, but if there are any members of the committee that want to ask any other questions before we call anyone else, we will be glad to have them do so now.

Senator KING. I think that Senator Hale, either he or I, misunderstood your last answer. Your position is that there should be a suspension of work upon the battle cruisers and——

Admiral FULLAM. And five battleships.

Senator KING. And five battleships.

Admiral FULLAM. A suspension only for six months until we gather up—I find there is chaos in the Navy at sea as well as on the beach in this whole business. We are woozy, if I may use the word.

Senator HALE. You feel we should take the money to be appropriated for five battleships and put it into aviation?

Admiral FULLAM. Yes, sir; I would, and right quick. Then I would decide later on, if the people will give you the money to build ships, to take it and build them if you want to, but I believe our

paramount need now is for submarines and aviation, after you complete those six superdreadnaughts and the submarines that are under construction. That is all.

Senator GERRY. You do not attach, then, the same importance to the battle cruisers that the Japanese do?

Admiral FULLAM. No, sir.

Senator GERRY. Because the Japanese at the present time have a program for eight additional battle cruisers. I think four are under construction and they have, of course, as you know, four battle cruisers that were built some time ago. So that by 1927 they will have 12 battle cruisers, and even if this 1916 program is carried out we will have only 6.

Admiral FULLAM. I will tell you what I think about it. I think with our 22 dreadnaughts, I will take six of them at the head of the line, put them ahead to do the duty of the battle cruisers. They are not so fast, but they are very much stronger in battle. I will put those six superdreadnaughts ahead, and let them look out for the battle cruisers in conjunction with the airplanes, and I am not worrying a little bit about the Japanese battle cruisers or the Japanese Navy—not a little bit.

Senator KING. Great Britain has but one of those huge battle cruisers, the *Hood*.

Admiral FULLAM. She has stopped building.

The CHAIRMAN. She has six battle cruisers.

Admiral FULLAM. But they are so weak that three of them went down to join Mr. McGinty in a few minutes at the Battle of Jutland, by gunfire alone.

Senator GERRY. That was by gunfire, was it not?

Admiral FULLAM. Yes, sir. There are lots of things come into this business. I did not expect to take so much of your time. At long range the *Invincible*, I think it was, was sunk, at 19,000 yards; $30,000,000 of battle cruisers was sunk at 19,000 yards.

Senator GERRY. At the Battle of Jutland, as I understand it, there were no airplanes used except one, and that was used by the British Government for scouting purposes and it was launched by lowering it into the sea. They did not launch it from the deck. But it came in too late to be of use. But Von Scheer used no airplanes in the Battle of Jutland, and no submarines. And I understand that in his testimony on July 4, to the German Admiralty, he stated that the capital ship was still the all-important factor.

Admiral FULLAM. July 4 when?

Senator GERRY. And I saw a few days ago in the New York Times a statement from Admiral von Tirpitz that the submarine issue had rather clouded the real facts, and they were that the battleship was still the dominant factor, backing up Von Scheer. Whether that testimony is valuable or not is another question.

Admiral FULLAM. But Von Scheer recently has completely turned a double dack somersault and stated that the surface fleets, battle cruisers and battleships, no longer control the sea.

Senator GERRY. I know, Admiral, that he has turned a back somersault on it, and that is why I stated I did not know how valuable his testimony was: only apparently he does not agree with Admiral von Tirpitz.

Admiral FULLAM. I will tell you why that is. Von Tirpitz opposed the submarine warfare. He wanted to build up the surface fleet, and he does not want now to admit that he made a mess of it. He is still maintaining his previous argument that Germany's first hope was her surface fleet, and he is now sticking to that. It is an open question. I do not say it is not. But Von Scheer does say recently that England's fleet need no longer be feared.

Senator GERRY. Of course, the fact remains that the English Admiralty are still in favor, for the present at least, of continuing the capital ship program.

Admiral FULLAM. They are not building any.

Senator GERRY. That is for financial reasons, but the statement of the First Lord of the Admiralty——

Admiral FULLAM. And he knows less about it probably than anybody that is discussing it.

Senator GERRY. Which was the statement, he said, made by his naval officers, with which he was backing his statement, that they should continue their program, and also the fact is that the Japanese naval department are going forward with their battle cruisers and their battleship program, which would seem to prove that they at least do not abandon, for the present anyway, the idea of the importance of the capital ship.

Admiral FULLAM. Once more I wish to apologize if anybody thinks that I am opposed to capital ships now. I want 22 of them very badly.

The CHAIRMAN. We have gone over all that matter several times, and as far as concerns the argument among members of the committee, while we do not want to curtail it, we can postpone it. I want to interpolate this in the record, that this committee, in so far as the opinion of the majority of it has been indicated, is in favor of the appropriation of as much money as there is prospect of being able to get, for improving naval aviation, including two airplane carriers, and including an increased appropriation for the production of aircraft and money for carrying on experiments.

In 1917 Congress, by an amendment that was put on in the Senate, which I had the honor of introducing, added 20 submarines to the 1916 submarine program, and those submarines are now, with the exception of one of them, all under contract and in process of construction.

STATEMENT OF REAR ADMIRAL ROBERT E. COONTZ, CHIEF OF NAVAL OPERATIONS.

The CHAIRMAN. Admiral Coontz, I would like to have a brief statement from you as to what is the policy of the Navy General Board on the question of the development of the submarine and the air service in the Navy, those two branches of naval strength?

Admiral COONTZ. The General Board believes that for the present, and as far as it can see, the battleships and battle cruisers should be built. It believes in submarines, as it has shown, and it believes in building submarines to the best development possible. It believes in getting at the present time two aircraft carriers. Only this morning I got the final papers that they should be of the very highest and best types, the kind that will go from 32 to 35 knots and be be-

tween 700 and 800 feet long. The exact characteristics have not yet been determined upon.

It believes that the 300 destroyers that we now have almost completed will be sufficient for some time. It believes in developing the mine layers. It believes that a fleet to be properly rounded out should be as well outfitted with aircraft as is possible, not only with guns but with the planes that must go along. Of course there will be fights between aircraft as there will be between submarines, as there will between destroyers, and after all that is passed by that the country that has the battleships and battle cruisers still left floating will control.

It believes in an offensive warfare, if necessary, and that fleets will move forward with training and all that goes therewith from date to date.

It does not ask for greater air appropriations now only because the development is as yet uncertain, but always going forward. The General Board approves of the plan that we now have to make experiments with bombing and torpedo planes at sea, between now and the 1st of June, on battleships that are under radio control, that are out at sea, where there would be first a search, then a shoot, and then to see the effect.

We do not believe that anything remarkably definite has come forth yet, but that we must study and try to develop everything in that line. Of course, that is what is going on all the time. But the General Board does not for one minute believe that a let-up for an instant on the battleships and battle cruisers is wise.

Senator SWANSON. What is your idea about the battle cruisers?

Admiral COONTZ. I believe the need for battle cruisers is one of our most urgent needs. I believe that every one of those six should be pushed to completion. Other nations have them and we have not; we are deficient.

Senator SWANSON. What would be our disadvantage in case of war with a nation that has battle cruisers and we have not?

Admiral COONTZ. One of their chief assets is the fact they have got great speed. Some nations believe in the fifty-fifty program on battle cruisers; some believe in one to four. We are sticking to one to four.

Senator SWANSON. The Japanese plan is eight-eight?

Admiral COONTZ. Yes, sir. Until we have developed the air further I believe we should be as safe as possible.

Senator HALE. Won't they be of particular value against the enemy's carriers?

Admiral COONTZ. Yes, sir; they will be of particular value against enemy carriers. Of course, I differ from Admiral Fullam about commerce. I believe commerce must be kept up, and we must protect it.

The CHAIRMAN. Admiral Fullam spoke of abandoning, as I understood him, the construction of 5 battleships and 6 battle cruisers, a total of 11.

Admiral FULLAM. Only suspending them temporarily.

The CHAIRMAN. I misunderstood. During the suspension, at least, he said we would have left 22 dreadnaughts. The most recent statement I have from the department is that if we continue with the construction of the entire program, including battle cruisers, we will

only have 27 ships in the first line, and if you subtract 11 from that it only leaves 16. That is right, is it not?

Admiral COONTZ. If those figures are correct, and I believe they are. Can you verify those, Admiral Taylor?

Admiral TAYLOR. That is right.

The CHAIRMAN. My figures are that when the entire program is completed in 1927, if carried out on the present plans, we will have in the first line 21 battleships and 6 battle cruisers, or a total of 27.

Admiral TAYLOR. That counts only the superdreadnaughts with 16-inch guns.

The CHAIRMAN. That leaves out the 12-inch guns?

Admiral FULLAM. I was not prepared to scrap those. Our 12-inch guns are pretty good guns.

Admiral COONTZ. We are not going to scrap them.

Admiral FULLAM. I know you are not. I am willing to count them in against Japan or any other nation.

Senator SWANSON. As I understand you, you think they ought to suspend or abandon the construction of these battleships and battle cruisers and let the money that would go in them, on account of your great interest as to aircraft, be diverted through this suspension of construction to aircraft and undersea craft?

Admiral FULLAM. Yes, sir.

Senator SWANSON. As soon as they are constructed would you resume the construction of this program?

Admiral FULLAM. Yes, sir: if it is decided at that time it is wise to do so. In other words the submarine nearly won this war, despite the surface ships, and I can not throw the results of this war overboard.

Senator WALSH of Montana. What submarine would you advise the construction of in addition to those outlined in the 1916 program together with the 20 additional ones?

Admiral FULLAM. We need all types.

Senator SWANSON. Are we to understand that in your opinion the submarines already constructed and those projected ought to be supplemented?

Admiral FULLAM. Yes, sir.

Senator SWANSON. By how many?

Admiral FULLAM. I don't know how many, but by a good many.

STATEMENT OF REAR ADMIRAL DAVID W. TAYLOR, CHIEF OF BUREAU OF CONSTRUCTION AND REPAIR.

The CHAIRMAN. Admiral Taylor, your opinion was quoted by Admiral Fullam and I would like to have a statement for the record from you as to your viewpoint of the present policy or proper policy of the Navy in regard to surface ships, submarines, and aircraft.

Admiral TAYLOR. Senator, I think that statement in the New York Tribune which Admiral Fullam quoted was a very unfair statement of my position. If you will read my article in the Franklin Institute you will see I state distinctly that so far the capital ship is necessarily the backbone, so far as we can judge. The result of the war was to make them bigger and more complicated. I think I may

quote in confirmation of that that a distinguished English naval architect has just brought forward a proposition for a 55,000-ton capital ship.

I said it was desirable, and it has been ever since the capital ship was known, to have something better, something which could deal with the capital ship, which was cheaper and simpler. But I did not say that that was in sight. I said it was a consummation devoutly to be wished.

Admiral FULLAM. I would not for a million dollars a minute misquote or put a wrong construction upon what Admiral Taylor said. He said right there that he still considered the battleship as the capital ship. He said the tendency is still toward larger units, but he said that further tendencies may be such that in the future we will be forced ultimately, by economy and other reasons, to return to smaller units, and that we should get busy the inventive talent of the Navy, ashore and afloat, and if possible develop those smaller units.

The CHAIRMAN. I think everybody is agreed on that.

Admiral FULLAM. I said that Admiral Taylor was wise and conservative, did I not, and that he was properly so.

The CHAIRMAN. I understand the opinion of the First Lord of the British Admiralty—and probably he knows as little about it as you stated, but his views are based very likely on the technical advice of the technical men in the British Admiralty—he goes further than you do, and says that he is still adhering to the plan of capital ships in so far as the future is concerned; that the battleship might fly in the air or navigate under the surface, but he does not say that is a condition that can be dealt with at the present time.

Senator KING. I would like to ask Admiral Coontz one question. As I understand, the conclusions which you have reached mean this, that naval warfare of the future is going to be very much greater—the cost of it—than ever in the past: that we have got to keep up capital ships, submarines, torpedo boats, airplanes—have a three-plane system—so that the cost in the future with these enormous battleships of 55,000 tons, as Admiral Taylor just stated, which has been projected by England—it means, with those two additional elements in naval warfare, the air and under the sea, the cost of maintaining the Navy in the future is going to be overwhelmingly greater than it has been in the past?

Admiral COONTZ. It is going to be slowly and steadily increased, Senator, unless we come to an agreement among nations for disarmament or partial disarmament.

Senator KING. The big war vessels now cost from forty-five to fifty-five million dollars?

Admiral COONTZ. Yes.

Senator GERRY. Forty million.

Senator KING. Well, these new large types of vessels will cost more than forty million.

Admiral COONTZ. Nearly that.

Admiral TAYLOR. A little more than forty million for the *Kentucky*, and that includes ammunition.

The CHAIRMAN. I think you misunderstood Admiral Taylor. He did not say he designed it.

Senator KING. No; he referred to an English ship of 55,000 tons. So you see only constantly increasing naval expenditures unless there is an agreement between nations for the limitation of armament.

Admiral COONTZ. I see the expenditures continuing high until we get these ships which we now have under contract. Then if we have some agreement for disarmament, of course they will fall away.

Senator KING. You can not give any assurance if we complete this 1916 program that that will prevent demands for different types of ships in the future.

Admiral COONTZ. None whatever.

Senator KING. With increasing cost.

STATEMENT OF CAPT. T. T. CRAVEN, DIRECTOR OF NAVAL AVIATION.

The CHAIRMAN. Capt. Craven, what is your position with the department?

Capt. CRAVEN. I am Director of Aviation.

The CHAIRMAN. Will you give a statement, for the benefit of the committee, as to the present stage of development of aircraft and as to its effectiveness against battleships in time of war?

Capt. CRAVEN. During the recent war the activities of aircraft were directed principally against the submarine, and they did not come into operation in connection with the ships until late during the war, when England saw the light and endeavored to place them with her fleets by commissioning carriers and improvising carriers which would enable these airplanes to have a place in the fleets. The planes to be used on these carriers were of the land type generally, somewhat modified perhaps, but of the general characteristics of land planes. The war closed without the complete adaptation of aviation to the fleet. That is the processes were being carried on but it had not fully found itself in the fleet, I may say, at the end of the war, though one or two operations had been successfully carried on by the fleet aviation, notably the bombing of certain German bases, coastal bases, attacked by aircraft conveyed by the fleet.

I think that all nations are awake to-day to the fact that aviation is to take an important part in all fleets in the future.

Senator WALSH of Montana. Was that the Zeebruggen?

Capt. CRAVEN. No, sir. I refer to the bombardment of Tengen, and there was another of Zeppelin bases.

Senator WALSH of Montana. What did they accomplish?

Capt. CRAVEN. They destroyed the sheds and destroyed the ships in the sheds.

Senator WALSH of Montana. It was an attack on an aviation base?

Capt. CRAVEN. Yes, sir.

Senator WALSH of Montana. By seaplanes?

Capt. CRAVEN. Yes, sir; by planes, probably land planes, or planes of the land type carried by ships. There is no doubt of the importance of aviation, and we see to-day every naval power seeking to augment its naval strength through the assistance of aviation. Several things seem necessary for us at this time. The first is a proper organization, which aviation has not yet had in the 10 years

or more which it has been with the Navy, for pushing itself along. It is a truth more or less fortunate, perhaps, that the big things in the Navy or in organizations attract the great attention. Hence, the battleships automatically get the greatest attention, not only in our Navy, but in all navies. As you go down the scale the lesser units in size receive less attention.

Submarines had struggled for a position in the Navy for perhaps 20 years, and until this war came along their importance was not appreciated not only in our Navy, but in all navies. Aviation has had a shorter life than the submarine, but I venture to suggest that unless steps are taken to give it an organization in the Navy which will enable it to force itself to its proper position in the Navy, its interest will be neglected in the future, as have the interests of the submarine in the past and of aviation in the past.

The future of aviation is bright in the Navy. But it is largely in the imaginations and in the wishes of those who are seeking the light. To-day we are doing the best we can with the materials at hand and with the resources which we have at our command. We can do nothing toward putting aviation definitely in the fleet until the ships which can properly carry the flying machines are present. With the advent of those ships we hope for improved flying machines which will be useful for the purposes of the sailor which have not yet been developed.

Senator LODGE. At that point may I ask you a question? How much can be done by improvised carriers such as you refer to that the British had in the war?

Capt. CRAVEN. We are improving one now, Senator, and have converted an old collier into a plane carrier, for experimental purposes and for laboratory purposes, for which she will go far; but as a ship to be useful in a war she would fill a very small hole.

Senator LODGE. I asked the question merely to find out whether there was anything we could do until the proper plane carriers are built.

Capt. CRAVEN. I would submit, sir, that a large majority of the carriers that England attempted to convert during the war for aviation purposes were failures.

Senator LODGE. Then other nations are no better off in that respect than we are?

Capt. CRAVEN. With the exception of England. England has these several ships now available as carriers.

Senator KING. They are converted, are they?

Capt. CRAVEN. All except two. The two last are built for the purpose. Japan is laying one down now, and I am informed that one is in contemplation. I think it unwise to attempt to convert a ship for that purpose; that is, from the studies we have made in the department, unless she is in a very elementary stage of completion.

Senator KING. May I interrupt you right there? Might not some of these cruisers or battleships, the hulls of which are scarcely laid, or if laid the progress toward completion is only a small per cent, be converted into carriers?

Capt. CRAVEN. No, sir. Every one is entitled to his individual opinion in these matters, and you will find many opinions. I submit that speed in capital ships is the most valuable asset. I fail to see how we could conduct a war on the other side of the Pacific, with

the long lines of communication which would have to be maintained, unless we had ships of the light cruiser and battle cruiser type, with a battery and speed able to cope with the vessels which Japan would put afloat with the view to cutting our lines of communication.

Senator KING. That was not exactly the question.

Capt. CRAVEN. Therefore I submit that we could ill afford to spare any of these battle cruisers which are now on the stocks. The battleships which are being laid down would be too slow to fulfill our requirements.

Senator KING. Coming back now to the question, assuming, and I only ask you to assume it, that we do not need all those battle cruisers and battleships which have been projected, the question I asked was whether or not you might convert some of those immature ships, the hulls of which have scarcely been laid into carriers?

Capt. CRAVEN. I think Admiral Taylor is more competent than myself to answer that question. I believe that the battleships are too slow, and it is a question of whether or not the cruisers would be adaptable.

The CHAIRMAN. Let me ask you, in conclusion, Captain, as Chief of Aviation in the Navy, and of course, required to study its effectiveness against surface ships, what is your opinion in the present stage of development of the two, as to the advisability of maintaining the battleship?

Capt. CRAVEN. At the present time I do not think any naval officer would agree to the abandonment of the battleship. There is nothing to take its place.

Senator WALSH of Montana. I would like to hear from Capt. Craven as to what he thinks about the possibility of the air service with proper air carriers, we will say, well equipped torpedo planes with proper carriers, on one side, and battleships on the other. Just assume that condition of things. That is, there is a fight now between your airplanes, your torpedo carriers, and the battleships.

Capt. CRAVEN. To-day we could not have such a battle. What will be possible in the future I am unprepared to say; but my belief is that aviation will constantly forge itself to the front, and as time passes it is highly probable that we will see vast changes incorporated in the designs of our capital ships; and I think that aviation, the submarines, the mines, and other things will all be instrumental in compelling those changes in the future as they have in the past.

We are all confronted with the situation as it exists, and we can not abandon the present situation and allow a gap to intervene. We have got to go along steadily and take advantage of progress as it develops. My thought is that we will have to retain battleships as they now exist for considerable time—certainly within the life of those which are now laid down.

Senator KING. But with your battleships you have to have your aircraft, your submarine, your torpedo craft?

Capt CRAVEN. Yes.

Senator KING. A battleship would be a pitiful thing out on the high seas without a complement of airships, submarine, and torpedoes?

Capt. CRAVEN. Absolutely. The character of war has been changed by the advent of the submarine, the mine, and the aircraft. We no longer wish to take capital ships to the coast of the enemy. You

could not do it in the future as you have in the past with immunity. You must have these different planes which Admiral Fullam has described, and you must have crews capable of controlling those different planes; if you do not, as to any one of them, you are going to suffer.

Senator KING. You could not send battleships and cruisers to Japan, for instance, or across the Pacific, unless you had your submarines, your aircraft, and your torpedo boats?

Capt. CRAVEN. Yes, sir; I think it would be as unwise to attempt to do that as to win a war against Japan with the submarine alone. In other words, I think you must have a superior force of any element which the enemy may have.

Senator KING. That means constant and mounting costs?

Capt. CRAVEN. It certainly does.

Senator GERRY. Is it not true that one reason why the submarine was so effective in the late war was on account of the peculiar situation of England, which rendered it very vulnerable to starvation?

Capt. CRAVEN. I believe so. For a time I was over there in a ship engaged in convoying vessels through the submarine waters from Gibraltar to the coast of England, and many a time I was kind of thankful that the British capital ships existed and prevented the Germany capital ships from coming out to interfere with our activities. And it also assisted the activities of the allied craft in chasing the submarines of the enemy at the same time. If the German big ships had been allowed to come out, it would have very much interfered with our convoy system, and, of course, would have interrupted the activities of our smaller craft which were engaged in chasing and endeavoring to sink the submarines.

Senator SWANSON. The listening devices and the depth bomb for destruction have rather reduced the efficiency of the submarine, have they not?

Capt. CRAVEN. The submarine is very dangerous. There is no weapon that has ever been discovered that has entirely done away with war. For every weapon that has been discovered in the past there has been a counter. But no weapon has been completely abandoned. We used in this war clubs, spears, and bludgeons, as they used them thousands of years ago, and we will continue to use them supplemented with other weapons as they come along.

Senator GERRY. Is it not true that with the present development of the airplane it would be very difficult to operate them at sea from a carrier if you had bad weather?

Capt. CRAVEN. Weather is always an important element in war which is frequently neglected. The condition of the weather is particularly important with aviation. Aviation will suffer in bad weather, and, of course, aircraft and air carriers will be handicapped at that time.

Senator GERRY. Would you not have more difficulty of flying your airplane off your carrier or landing her on the carrier if the ship was rolling or pitching in a seaway?

Capt. CRAVEN. In any weather which gave the carrier great motion I should say it would be almost impossible, and it would be very difficult at night.

Senator GERRY. Would it not also render an attack by airplane torpedoes practically impossible in that condition?

Capt. CRAVEN. I think, sir, that you could probably fly off the deck much easier than you could return to it, and if you had opportunity to deliver an attack you would go ahead and do it.

Senator GERRY. After you got off and you attempted to attack would it be possible for the airplane torpedo to work at all in the heavy seaway? Are they not in a very experimental stage at the present time, anyway? Are they not very unreliable?

Capt. CRAVEN. We have not developed them to the point where we hope to see them as yet; but to answer the first part of your question, I would say that in rough weather naturally the torpedo would not be so effective. On the degree of roughness, of course, depends, perhaps, the success of your attack. During the war several ships were sunk by torpedoes dropped from aircraft. They were merchant ships, and the torpedoes were small. We are using the small torpedo now, dropping it successfully by aircraft and making hits on moving targets. We have not yet developed the large torpedo, or the process for dropping the large torpedo, in our Navy.

Senator GERRY. It is still in an experimental stage?

Capt. CRAVEN. But fairly well along. We are working with it.

Senator SWANSON. Let me ask you this question. As I understand it you have a bill here to create a separate bureau of aircraft in the Navy Department. Do you think it is very important to get aircraft in good shape at once?

Capt. CRAVEN. I think it is a most serious thing.

Senator SWANSON. As I understand, all branches of the Navy Department agree on this bill, that it is satisfactory, and they think it would be effective? Is that true?

Capt. CRAVEN. It is pretty hard to get many people to agree on any one thing, Senator. But I think the consensus of opinion is in favor of the bill.

Senator SWANSON. A large majority are in favor of it, and you think it ought to be put on this bill as an amendment?

Capt. CRAVEN. Yes, sir; I urge it.

Senator KING. Don't you think this would be the better plan, to have a sort of interdepartmental organization, an officer appointed by the War Department, one by the Navy, and one by the President, a civilian, a board of three, that would take charge of the aircraft of both the Army and Navy?

Capt. CRAVEN. No, sir.

Senator KING. Especially to preserve economies in construction?

Capt. CRAVEN. That is a big subject.

Senator KING. I know it is.

Capt. CRAVEN. I have been mixed up with the row for some time, and I would like to explain my views.

Senator KING. I do not ask that; I just wanted your answer.

Senator GERRY. I would like to hear it.

Capt. CRAVEN. The Navy problem is one by itself and it must be solved by the Navy, because no soldier nor any civilian can be familiar with a naval problem. The naval airplane is yet to be properly developed.

Senator KING. That is true of land.

Capt. CRAVEN. The land plane is far ahead of the Navy. When the naval plane is developed, and it can be standardized, then I will say the time has come for a common production. But as long as you

must take this thing and attempt to solve the many troubles which now arise, I can not see the advantage of a combine.

Senator KING. Then you would oppose a department of aeronautics?

Capt. CRAVEN. Yes, sir; most distinctly.

Senator KING. Admiral Taylor, the program of the Navy, as I understand it, without recapitulating all that it calls for, involves a particular expenditure. When I say particular, as far as work can be done, an expenditure of more than a billion dollars, does it not?

Admiral TAYLOR. No, sir; something over nine hundred million. That is for the three-year program.

Senator KING. Have you taken into account with that nine hundred million the overhead expenses, taking into account the airplane and the creation of a bureau such as Capt. Craven has referred to and the development of the airplane?

Admiral TAYLOR. You are speaking of the 1916 program?

Senator KING. The 1916 program plus what the Navy feels is important in order to have an up-to-date Navy?

Admiral TAYLOR. Of course, more than half of the 1916 program costs has been spent or appropriated, something over five hundred million.

Senator KING. How much has been spent?

Admiral TAYLOR. The majority of it. There will be a slight balance on the 1st of July, but not much.

Senator KING. Then the 1916 program, plus what your experts now concede to be necessary for a well-rounded production of submarines and airplanes will cost more than a billion dollars?

Admiral TAYLOR. If you add more than enough to bring it up to a billion it would cost more than a billion; but we don't know what we are going to spend yet.

Senator KING. As the Navy has outlined its needs for the construction of the present capital ships, your scout cruisers, your submarine, and then taking into account the necessary aircraft, developed by a bureau, and the carriers, and all that, the cost would be more than a billion dollars?

Admiral TAYLOR. If you add more than $100,000,000 to the 1916 program, for construction, it would bring the total to more than a billion dollars.

Senator KING. The consensus of the opinion of the officers in the Navy I understand would call for those additional appropriations for the development of aircraft and submarines, which would make it more than a billion dollars?

Admiral TAYLOR. Not from the present time, Senator. That was given before the House committee.

Senator KING. I will put it this way: Are you not, and the various branches of the Government, recommending, in order to complete the 1916 program, and to complete such other factors as are regarded as needed in a well-rounded Navy, such appropriations as would aggregate, with the 1916 program, considerably more than a billion dollars?

Admiral TAYLOR. Yes; if you add to the 1916 program. I would like to say that the information we gave Mr. Kelley was that the total expenditures and appropriations to date for 1916 program was $538,270,000. That is on page 553 of the House hearings, leaving a balance to be appropriated of $434,000,000.

STATEMENT OF REAR ADMIRAL CHARLES B. McVAY, Jr., CHIEF BUREAU OF ORDNANCE.

The CHAIRMAN. Admiral McVay, will you state what is your position with the department?

Admiral McVAY. Chief of the Bureau of Ordnance.

The CHAIRMAN. Will you give the committee your views as to the present state of development as between surface ships and aircraft and submarines, bearing on the question of the proposed abandonment of the program of construction of surface ships, abandonment or suspension?

Admiral McVAY. Before going into the development of the aircraft part of it, I would say that it seems very unwise to me to slow down in the building program. So far as I know there are about two nations in the world that have 16-inch guns. So far as I know there is only one nation that has a battleship in commission with 16-inch guns aboard, and that is not the United States. There will be one other such ship carrying 16-inch guns which will be in commission before we get one of our ships in commission.

Senator KING. Do any of these five battle cruisers or capital ships that are about to be completed carry 16-inch guns?

Admiral McVAY. They will. I say they have beat us now; we have been beaten by several months. Ours are coming along, but if you slow down any of them it gives some one else just so much advantage over us.

Senator KING. But these five battleships which will soon be completed, which are 60 per cent or more completed, they do carry 16-inch guns?

Admiral McVAY. They do. In the discussion of the question of the capital ships, I had occasion, as did all the chiefs of bureaus, to go before the General Board, where the subject is generally discussed of building ships, the characteristics, what is to be expected of them, how to use them, and how to render them more safe from attack. I have read the statement of the General Board regarding the capital ships and the different ships that should comprise the fleet. Personally, I absolutely agree with everything that is recited there. I have inquired in the bureau of technical officers, and these are seagoing officers, and they agree that it covers the case absolutely.

I have also read the report made by the committee of the Senate which covers the case, and there is not a thing in it which could be criticized.

Senator KING. Your program, and when I say "your program" I mean the Navy Department program, as I understand it, would call for substantially a little more than a billion dollars. Then that does not include, of course, the annual maintenance, the upkeep of the fleet, the personnel, overhead expenses. That would amount to several hundred million, would it not?

Admiral McVAY. It would, but that is going into past history. The money, except for $100,000,000 has been appropriated and the plan laid down for pretty nearly five years; it cost us a good deal of money not to have had it before, and I think $1,000,000,000 is cheap.

Senator KING. Without expressing any opinion, whether cheap or whether costly, what I am interested in is trying to get the facts. As

I understand it, your program calls for a billion or more of construction. At the end of two or three years, when that program shall have been completed, many of those vessels will probably be obsolete. That is not, perhaps, the particular ones that are being constructed, but those that are regarded as capital ships now. That is true, is it not?

Admiral McVAY. Yes.

Senator KING. Then, in addition to the billion dollars which we are to spend, part of which has already been expended in the 1916 program, during the next two or three years we will require two or three hundred million dollars every year for the upkeep of the ships and the maintenance of the Navy?

Admiral McVAY. That is something, of course, that I don't know anything about.

The CHAIRMAN. Senator, let me read to you the estimate of the House committee, based on the testimony before it, as to the cost:

The original estimated cost of the program of 156 vessels was $544,700,000.

Senator KING. That was when the capital ships were to cost $16,000,000, and now they cost $45,000,000.

The CHAIRMAN. You interrupted me before I had finished.

It is now estimated that the program will cost to complete $972,931,000, of which $538,270,000 has been appropriated heretofore.

Senator KING. But not expended?

The CHAIRMAN. And about $500,000,000 has been contracted for or expended.

Senator KING. In addition, we are now called upon, and I think we must spend, more for airplanes, for carriers, and for submarines, in addition to the 1916 program, which will necessarily cost several hundred million dollars.

The CHAIRMAN. We can not go along for nothing, you know.

Senator KING. I am expressing no opinion about that. I am just trying to figure where we are landing. With the development of the war and with the experiences of the war, with the supposed increase in our moral concepts, and all that, our naval program for the future is going to be more than half a billion dollars a year.

The CHAIRMAN. No; I do not think it is. But we will discuss that later on.

Senator KING. The American people, in my opinion, will not submit to it, and they ought not to.

The CHAIRMAN. Will you go ahead, Admiral?

Admiral McVAY. I think those two statements referred to cover the question very well and very clearly. At the present time the airplane development has not reached the stage of development where there is a serious menace to the modern fighting vessel. We are trying to bring it to that condition. The Bureau of Ordnance is in the peculiar position of toting water on both shoulders. If anybody can sink a ship by a bomb, we have got to furnish a defense. If anybody builds a ship that can not be sunk by a present bomb, then we have to find the bomb. That is the way the thing is done.

At the present time the capital ship is ahead of the airplane in its offensive power, and it will be for some time, so far as I can see. There is nothing that I have seen in any test—and we have made a

great many, and are making more—that shows that an airplane can do more at present than local damage. It is not pleasant to have people dropping bombs on you that burst, flying over you, but the damage is purely local, and I should define the status of a bomb now as at present developed against a properly protected ship as a good deal like firing a gun at it without a projectile in the gun.

Within a very limited space any explosion has a certain well defined effect throughout an area, not the same in every case. It would be more like your hand going out in which there would be possibly an area of considerable pressure along this line [indicating] and along that line [indicating], and you could stand here and escape the pressure entirely. Within a certain well-defined area any charge or explosive will give a certain pressure, and outside of a certain radius no damage will be done, either to the material or to the person. It happens that that pressure to do injury to human beings or living things is seven pounds. Within 100 feet of a detonation of 300 pounds of the most modern explosive, that pressure is not reached. Within 5 feet of that explosion the pressure is less by a considerable amount than that directly under the muzzle of a 12-inch gun.

Senator KING. Is there any difference in the power and destructiveness of a projectile from your torpedo destroyer, your boats, than from the air, assuming that the explosive substance in the air weighs as much as your projectile?

Admiral MCVAY. Yes; there is quite a difference, because the explosion under water has the weight of the sea water behind it, and that is a good deal like—if I can give you an example—with the force of the explosion you have the weight of the water over the torpedo——

Senator KING. I understand that.

Admiral MCVAY. And a good force comes up, but the rest of the force would go toward the ship, which is the first to give.

Senator KING. Torpedoes which have been fired without going through the water, above the surface of the water, which have struck battleships and sunk battleships to the bottom——

Admiral MCVAY. No; Senator.

Senator KING. Well, it has so injured them that some of them sunk.

Admiral MCVAY. No. I don't think I understand your question.

Senator KING. Do you deny that a torpedo fired from one of our destroyers has sufficient power to sink a battleship, if it is a good hit?

Admiral MCVAY. From under water?

Senator KING. No; from the surface?

Admiral MCVAY. Oh, yes; it would simply collapse. It has no strength whatever. It has no penetrative power. If it struck, it would simply collapse and explode, and you have a local explosion. It would damage things within the vicinity, local damage, but that is all.

Senator KING. You think that no torpedo could be fired from a torpedo boat above the surface that would injure a battleship, except locally?

Admiral MCVAY. No, sir.

The CHAIRMAN. I think there is some misunderstanding.

Admiral McVay. I don't know whether you mean firing this torpedo from a torpedo boat and it goes under water and then hits the battleship—that is one thing. Or supposing you could drive a torpedo into a destroyer from the air, which you can not——

Senator King. I was assuming that.

Admiral McVay. It would be just the same as dropping it.

Senator King. That is what I was trying to get at.

Admiral McVay. That would be the same as dropping, and would do nothing except local damage. Hitting under the water is another proposition. But above water the damage is nothing but local.

Senator King. How about the *Indiana?*

Admiral McVay. The *Indiana* is an old ship, and the experiments were conducted with the view to determining some problems which the Bureau of Ordnance has been conducting with the Bureau of Construction for over seven years.

Senator King. When dropped from an altitude of several hundred feet or several thousand feet the damage would be greater than if it were just laid upon the surface?

Admiral McVay. It would be less, except by accident. Those bombs were placed in position where they would do the most damage. It was done for the purpose of obtaining information in the building of new ships. There is rather a misunderstanding as to what can be done by anything dropped in the air.

Senator King. You think no explosive is powerful enough dropped from the air to destroy a battleship; do I understand you to say that?

Admiral McVay. No. I said there is no bomb developed which can carry sufficient explosives to do other than local damage to a battleship. A great many people have an idea that if you get 10,000 feet in the air, or 20,000 feet in the air, or 30,000 feet in the air, and a bomb is dropped down it is going to have such a velocity that it can go through something. That is not correct.

The higher you go the more air resistance you encounter on the way down, and your bomb blows up. You can get 500 foot-seconds velocity, less than 500 feet velocity, dropping a bomb from a height of 4,000 feet, and no more. You get up to 10,000 feet and you will get 800 foot-seconds velocity and no more. You keep on going up higher and you may get 1,200 foot-seconds, and you may get 1,500 foot-seconds, but that is all.

Senator King. This is rather in opposition to the Newtonian rule as to gravitation?

Admiral McVay. No; they are all based on dropping in a vacuum. They have nothing to do with dropping a bomb in the air. When you get a bomb which will penetrate the vitals of a ship you have a bomb of such a type that you come back to an armor-piercing projectile. The weight of the projectile, the weight of the explosive, is very limited. When you get beyond that and get up to a high weight of explosives, then you lose your wall thickness and you fail to penetrate.

Senator King. What is it that when you hurl a projectile from a battleship from a great distance makes it a destructive force?

Admiral McVay. You give it a very high muzzle velocity and a long range, and then you obtain your penetration; then you have your explosion.

Senator KING. Exactly.

Admiral McVAY. But the explosion, as I say, for a particular projectile which can penetrate armor, your explosive charge must be limited. On the other hand, if you had a light projectile with a large explosive charge it would just hit and stop and explode, and you would get but little damage from the velocity of the gas, and that is all.

The CHAIRMAN. How do you reconcile that statement, Admiral, with the destruction of the solid turreted Belgian forts by German howitzers with high-explosive projectiles? I understand the destruction there was tremendous.

Admiral McVAY. I imagine that was due to hitting in the vicinity——

The CHAIRMAN. They hit not only in the vicinity, but the object itself.

Admiral McVAY. They could crack the plate; you could crack a plate, but not penetrate. I am told those were concrete.

Senator GERRY. Was not that true of the Battle of Jutland—that the English used shells that exploded on contact, while the Germans used a shell that penetrated and then exploded?

Admiral McVAY. That is so reported, and that we had adopted a method of making projectiles, that was suggested and strongly urged, by which we would have found ourselves in the same position we are now in.

The CHAIRMAN. That was the Isham shell?

Admiral McVAY. And other similar shells.

Senator KING. May I inquire whether the photograph in the New York Tribune of Sunday, January 23, 1921, showing the condition of the *Indiana*—the upper and lower decks, that resulted from a bomb explosion of 900 pounds—is substantially accurate?

Admiral McVAY. There were certain photographs—these tests were conducted by the Navy Department and were of the most confidential nature. No authority was ever given for making them public. It is possible that these are the photographs; and if so, they were not published with any permission, so far as I know.

Senator KING. I asked you whether these substantially represent the havoc which was wrought on all the decks by the explosion of just one bomb?

Admiral McVAY. I am going to answer your question by saying these are copies of the official photographs taken.

Senator KING. Does it correctly represent the damage?

Admiral McVAY. It does.

Senator KING. And there was damage not only on one deck, but it extended down three or four decks?

Admiral McVAY. It is all local. It does extend from one deck, a very light deck, through that deck and down to the other, just as an explosion of a gun would cause damage.

Senator KING. Even on the last and lowest deck it shows that the iron beams and the frame structure were badly injured and damaged.

Admiral McVAY. This, Senator, substantially shows the action of the bomb; and, as I said before, it is purely a local explosion and limited to the distance within which an explosion would act. In this case it was on a thin deck, and it extended a certain distance. I have

not measured those distances, but it is possibly, I think, something like 10 or 15 feet.

The CHAIRMAN. Were those bombs dropped from an airplane or were they placed?

Admiral MCVAY. No; they were placed, but it would have made no difference, so far as the effect was concerned, unless the deck was thin enough and the bomb was strong enough to come through the deck. But that is not a modern ship, of course.

There is one thing I want to change in an answer to your question, in which I spoke about the photographs, that there was no authority for showing the photographs. What I meant to say was there was no authority for giving out the data which accompanied the photographs. The Navy Department gave permission that those photographs should be published, but not permission to publish data that accompanied them.

The CHAIRMAN. Admiral Taylor, I would like to hear your comment on the amount of damage done to the *Indiana*, as shown by these photographs.

Admiral TAYLOR. I want to say, Senator, as I have had occasion to look up those tests as to the damage done to the *Indiana* by that enormous bomb, the total weight of which was 1,600 pounds, of which the major portion was high explosives, there was a big hole blown in the light upper deck where this bomb was located, and a great deal of destruction done for a certain radius in that plane. The next deck below, which was the main deck of the ship, had a comparatively small hole in it. The deck below that, which was a protected deck, was not affected. The bomb would never have sunk the whole ship. As a matter of fact, she had been sunk before the bomb was set off, and was lying on the bottom.

A careful examination of the photographs and of the report indicate that the protected deck was practically intact.

The CHAIRMAN. Would the engine and the vital machinery of the ship have been injured?

Admiral TAYLOR. No, sir; the vital portions of the ship would not have been affected.

The CHAIRMAN. Would the hull of the ship have been affected or damaged?

Admiral TAYLOR. There was a great deal of damage done to the hull. One 8-inch turret was completely put out of action. A great deal of damage was done to the light superstructure deck and to all the fittings in that vicinity.

The CHAIRMAN. I may not understand what a hull is. I mean——

Admiral TAYLOR. You mean the part in the water, I take it.

The CHAIRMAN. Yes.

Admiral TAYLOR. There was no damage done below water as far as I can discover. You can not sink a ship unless you destroy its buoyancy, and that requires letting water in below the water level. This damage was practically all above the water.

Senator GERRY. It was a very old ship, was it not?

Admiral TAYLOR. It was the *Indiana*, the battleship *Indiana*. Her design was 30 years old.

Senator GERRY. That explosion would not have had the same effect, probably, on a modern ship?

Admiral TAYLOR. I think not. Our modern ships have a good deal higher freeboard. They have at least one more deck before you get to the protected deck, and two in many cases.

Senator KING. Without having you divulge anything you think ought not to be repeated, we have heard repeatedly of a very high explosive that has been discovered, the effect of which would be, if you dropped a small bomb from an airplane over Berlin, it would blow up the whole city; that that has been stated by Mr. Baker and by experts from the War Department who were working in the explosive and war-gas branch of the Army. You did not use that new explosive, did you?

Admiral TAYLOR. Senator, I know nothing about that. I saw the same statements. That refers to a new poison gas, not an explosive.

Senator KING. I understand both. Admiral McVay, can you tell us about it? What did you use?

Admiral MCVAY. T. N. T. There is no such explosive as you mention so far as I know.

The CHAIRMAN. The subcommittee will meet at 2.30 to continue consideration of the naval appropriation bill, and this session will now be adjourned.

(Thereupon, at 1.40 p. m., a recess was taken until 2.30 o'clock p. m.)

AFTER RECESS.

The committee reassembled at the expiration of the recess, Senator Miles Poindexter, chairman, presiding.

Present: Senators Poindexter (chairman), Hale, Ball, Swanson, and Gerry.

The CHAIRMAN. The committee will be in session. Admiral Parks has just handed me the statement in regard to the question that we were asking him with reference to when the committee adjourned the other day—the submarine base at Key West. I would like to put the statement into the record.

(The statement referred to is as follows:)

NAVY DEPARTMENT,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., February 19, 1921.

MY DEAR MR. CHAIRMAN: Reference to amendment intended to be proposed by Mr. Fletcher to the bill (H. R. 15975) making appropriations for the naval service for the fiscal year ending June 30, 1922, and for other purposes, viz, at the proper place insert the following:

"Naval Station, Key West, Fla.: For the development of a submarine base, to continue, $800,000, to be immediately available."

On the 31st of October, 1919, a contract was entered into with the Snare & Tries Co. for the construction of a breakwater and piers and the dredging of the harbor, at an estimated cost of $1,705,730. During the progress of the work it has been necessary to make additions amounting to $43,401.05.

During the progress of the work the material excavated from the harbor has not proven to be as favorable for breakwater construction as was expected and it is not now thought that the material remaining to be excavated will materially better than that so far excavated.

It is reported that the engineers of the Florida East Coast Railroad have been able to make satisfactory shore protection by covering the character of material now being excavated at Key West with a thick layer of marl, and to cover the breakwater now on the contract with a layer of marl 8 feet thick will cost $115,500, making a total cost of approximately $1,865,000. If the results are satisfactory this amount will represent the total cost of construct-

ing the harbor and piers. If the experience with two or three severe hurricanes should show an unstable condition of the breakwater, it would then be necessary to drive sheet piling at an estimated cost of $180,000. This estimate is based upon current-market prices for labor and material, and is probably in excess of the cost that would be incurred at the time the sheet piling would be driven.

At the present time the bureau believes that with work now under contract and the addition of sheet piling a permanent harbor can be constructed for $2,050,000. If, however, the work is not in a properly protected condition at the time of the next hurricane considerable of the breakwater will be washed out at the expense of the contractor, and without doubt the contractor will claim damages if the Government suspends his operations.

The value of a submarine base at Key West in time of war has been fully recognized, and the only reason for abandoning work under the present contract would appear to be that under another and perhaps more favorable contract a sufficient base would be established before it becomes necessary for the United States to enter into another war. This, however, is not at all certain.

This project was appropriated for in the act of July 1, 1918, and reads:

"For the development of a submarine base (limit of cost $2,500,000), $1,000,000."

Sincerely, yours,

C. W. PARKS,
Chief of Bureau.

Hon. MILES A. POINDEXTER,
Chairman Subcommittee on Naval Affairs,
United States Senate, Washington, D. C.

The CHAIRMAN. I notified Senator Smith of South Carolina that this matter of the Charleston dry dock was to come up Monday morning, Senator Swanson, probably, in order to give him an opportunity to be heard if he desired to be heard.

Admiral Coontz, there is a bill pending before the committee and there will be an amendment offered to the bill providing for a naval base and defenses at Guam. Will you advise the committee what the views of the Navy General Board are on that subject?

Admiral COONTZ. The Navy General Board are of the belief that the commencement of the making of Guam a base should be started just as soon as the Congress feels that the necessary funds can be provided. This bill, as we asked the House to pass it, provided for an appropriation at Guam for $1,499,000, which included various ammunition houses, shell houses, war-head storage, mine storage, 13 two-gun service ammunition storage, and 5 four-gun service ammunition storage, and a submarine and destroyer base.

Those items were recommended by the board on navy yards and navy bases, and the General Board has many times stated its views regarding Guam.

In connection with that matter I would like to ask the committee to look at this map of the Pacific, showing Guam in blue and the various American and other possessions. I think that in the hearing you had on Guam I gave about all that I knew about it, except to call your attention to what the Navy Department recommended in the bill, and those items were left out by the House committee.

Senator HALE. Your recommendation was substantially in line with what was recommended at the hearing?

Admiral COONTZ. Yes, sir; and that we should start in as early as possible there, especially with reference to the submarine base. I have the submarines ready to move at any time.

The CHAIRMAN. The next subject in the bill is the Bureau of Medicine and Surgery. Is there anybody here representing that bureau who cares to make any comment on it?

Admiral PEOPLES. They ask for no increase.

Admiral COONTZ. They said they were satisfied with the bill.

BUREAU OF SUPPLIES AND ACCOUNTS.

The CHAIRMAN. The next subject is the Bureau of Supplies and Accounts.

STATEMENT OF REAR ADMIRAL C. J. PEOPLES, ACTING PAYMASTER, UNITED STATES NAVY.

Admiral PEOPLES. The appropriations under the Bureau of Supplies and Accounts, Mr. Chairman, have to do primarily with the maintenance appropriations which depend upon the number of men that were in the service, the number of ships to be kept in commission which affect the fuel, and the amount of provisions to be consumed.

Taking up, first, the appropriation for Pay of the Navy, on page 26, line 21, $133,202,263 is provided.

That was predicated on the passage by the House of section 6 of the bill 15994, which provides:

> That hereafter no enlisted man in the Navy shall be paid a reenlistment gratuity, or any proportionate part thereof, in excess of an amount equal to one month's pay for each year of service in the last expiring enlistment of such enlisted man.

Senator HALE. That is the House legislative bill?

Admiral PEOPLES. Yes, sir. That is section 6. If section 6 is included by the Senate Naval Affairs Committee in the bill no change will be necessary under this item. If, however, it be not included there will have to be added $2,056,650. That is for that particular item.

The CHAIRMAN. Is that an estimate?

Admiral PEOPLES. That is a very close estimate, as close and as accurate as can be made, sir.

There is another contingency, and that is with reference to section 5 of another bill which was under consideration by the House Naval Committee.

The CHAIRMAN: What was the other bill?

Admiral PEOPLES. The other bill was No. 15954, which provided that the annual retainer pay of members of any class of the Naval Reserve Force, except the Fleet Naval Reserve, after confirmation in rank or rating shall not exceed one month's base pay of the corresponding rank or rating in the Navy, and that when any such members of any class of the Naval Reserve are on active duty, except active duty for training only, they shall receive only the active duty pay and allowance of the corresponding rank or rating for service in the Navy.

In other words, that bill, if enacted into law, would reduce the retainer pay for all classes of reserves except the fleet Naval Reserve.

The CHAIRMAN. What is the status of that bill?

Admiral PEOPLES. That bill is still in the House Naval Committee, but the Appropriations Committee, when it agreed upon the estimate for pay of the Navy, based it on only one month's retainer pay for all members of the reserve force outside of the fleet Naval Re-

serve; and if that proviso be not incorporated there will have to be another addition of $5,810,222 for that purpose. In other words, it changes the present law. The present law allows $5,810,222 more than is carried by the House bill.

Senator HALE. What would be the effect if it were cut off? Would it be harmful to the reserve if we include the provision that is in the House legislative bill?

Admiral PEOPLES. That is a matter of policy, Senator, which I think Admiral Washington, under whom the training of the reserves comes, is better qualified to discuss than I am.

But if the law be not changed, there should be that sum of money added to the pay of the Navy.

Senator HALE. How much would be added?

Admiral PEOPLES. $5,810,222. That will change the total from $133,202,263 to $141,069,045 to allow for a Navy of 100,000 men and the pay of officers and men, including the members of the reserve force who were entitled to be paid at rates now authorized by law.

Senator BALL. What difference would there be in the amount if the Navy were to consist of 110,000 men?

Admiral PEOPLES. For a Navy of 110,000 men there should be added the sum of $7,688,400. For a Navy of 120,000 men, just double that amount, or $15,376,800.

The CHAIRMAN. Does that include the two items you have just spoken of?

Admiral PEOPLES. It will be in addition to them, sir.

The CHAIRMAN. I understand that these figures that you have just given us are based on the estimate of 100,000 men?

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. Will those figures remain the same for 110,000 men and 120,000 men?

Admiral PEOPLES. With those two items added to them.

Senator BALL. It would not change those two items?

Admiral PEOPLES. No, sir.

Senator HALE. Those two items refer to the reserves and to the regular number?

Admiral PEOPLES. To the Reserves and those men who reenlist.

PROVISIONS, NAVY.

The CHAIRMAN. What is the next item, Admiral?

Admiral PEOPLES. The next item is "Provisions, Navy," pages 27 and 28. The sum total is given on line 7, page 28. The amount carried by the House bill is based on a 50-cent ration.

Senator BALL. For 100,000 men?

Admiral PEOPLES. For 100,000 men. The Navy's estimate on the cost of the ration for 1922 was originally based at 68 cents per ration. In the hearings before the House Appropriations Committee that figure was revised to 60 cents per ration. The House Appropriations Committee, however, reduced the estimate to 50 cents per ration on the assumption that the market costs of foodstuffs in 1922 will be 50 cents in lieu of 60 cents and also for the further reason that they had fixed the Army ration at 42 cents. The ration for both the Army and Navy is fixed by law; that is, the component parts are

stipulated by law, it being set forth as to how much of each article must be isued to each enlisted man. The Navy ration is approximately 35 per cent larger in quantity by law than is the Army ration.

Senator BALL. Why is that?

Admiral PEOPLES. For many years the Army ration was augmented by post-exchange funds and also it was found by experience that men who live at sea eat larger quantities of food than men who live on shore.

Using the same unit of costs, the Navy ration for the same component parts cost exactly 49.14 per cent more than the Army ration, or, in other words, approximately 50 per cent. Fifty per cent on top of 42 cents allows for a 63-cent ration.

Senator HALE. This is a matter, Admiral, that under the law you have a right to take care of in a deficit?

Admiral PEOPLES. Yes, sir; under the law a deficiency can be incurred if necessary, the law recognizing the fact that it is very largely a question of quantities and not so much a question of values, although from the best information that we can obtain right now and on the closest estimate that can be made for the ration in 1922 it is on the basis of 60 cents per man, providing three full meals each per day.

The Navy ration costs more in many respects than does the Army ration, for the reason that it is to a large extent prepared for overseas shipment, and a body of men on shore, in a barracks, can buy food more cheaply than can an equivalent body of men at sea.

Senator HALE. Of course, it is not all used for sea rations?

Admiral PEOPLES. Oh, no, sir.

Senator HALE. So that you will probably have a greater ration per day for those on shore than you need in certain cases?

Admiral PEOPLES. Every advantage is taken of the markets for fresh foods, which, of course, are cheaper.

Senator HALE. But if you have that amount to spend, you will spend that amount for those on shore as well as at sea?

Admiral PEOPLES. No; because it is a question of quantities and not values. In other words, the men must be given a certain quantity of food each day, which determines the amount of the appropriation. The best that we can figure it, on the basis of 60 cents——

The CHAIRMAN. Sixty cents, not 63 cents?

Admiral PEOPLES. We think it ought to be 63, but on the basis of 60 cents we think the appropriation should be increased——

Senator HALE. How much will that increase the provision?

Admiral PEOPLES. It will make the total $25,055,267.

Senator HALE. For 110,000 men how much does it amount to?

Admiral PEOPLES. Do you wish the total, sir, or just the increase?

Senator HALE. The increase in each case.

Admiral PEOPLES. $2,190,000.

Senator HALE. For 110,000 men?

Admiral PEOPLES. Yes, sir. For 120,000 men the increase will be just double that, or $4,380,000. That is in addition to the $25,000,000.

It is also recommended that section 9 of the bill 15994, as provided by the House Naval Committee and now pending on its calendar, be included.

The CHAIRMAN. What makes you think the ration costs 60 cents? On what do you base that, when the House thought it would be 50 cents.

Admiral PEOPLES. It is very largly a matter of opinion, Mr. Chairman. The ration last year cost about 70 cents. It cost more after the war than it cost during the war, very largly due to the fact that the Government control of foodstuffs was taken off. Of course it is a mere estimate as to what the cost of foodstuffs is going to be, say, a year or a year and half from now.

The CHAIRMAN. These supplies and rations are purchased in large quantities, are they not?

Admiral PEOPLES. They are bought in season in as large quantities as is consistent with the condition of the market.

The CHAIRMAN. And the market for staple articles of food has gone down and is going down?

Admiral PEOPLES. We have noticed some reduction, but not so much of a reduction as to warrant us in the conclusion that the estimate should be reduced as low as 50 cents. You take three full meals per day at the rate of 20 cents per meal, and that is a very conservative estimate.

MAINTENANCE, SUPPLIES, AND ACCOUNTS.

The CHAIRMAN. What is the next item?

Admiral PEOPLES. The next item, sir, is maintenance, supplies, and accounts.

The Secretary has recommended that there be no increase in the total, that it be left to stand as it is, but the limitation referred to on page 29 be increased to $5,200,000. The letter from the Secretary, dated February 14, 1921, goes into great detail in order to show the necessity for increasing that limitation.

Senator BALL. You ask for no total increase?

Admiral PEOPLES. No, sir; leave the total as it stands. $5,200,000 is the same amount as for this year, if the deficiency bill which passed the Senate yesterday is accepted by the House, which we understand will be.

Senator HALE. Then, you would say, Admiral, that if we do not increase the $5,200,000 we could cut something off of the $9,000,000, could we not?

Admiral PEOPLES. That is the assumption; yes, sir; but the amount is too low, Senator, as the Secretary states.

Senator HALE. Apparently the appropriation is in the wrong place.

Admiral PEOPLES. It is. The Secretary says that the cut was made by him inadvertently, it was not justified, and is out of all proportion to the cuts which he made under the classified force for the other bureaus of the Navy Department.

The CHAIRMAN. We have his letter here.

Admiral PEOPLES. It proves detail by detail, step by step, sir, exactly where this force is employed and the reasons why. He compares the expenditures for 1921 and 1922 with the expenditures in 1916, and shows conclusively why that sum is wholly insufficient.

The CHAIRMAN. What is the chief insufficiency there, as to chemists or as to messengers?

Admiral PEOPLES. It is as to the clerical force and cost inspectors.

The CHAIRMAN. How do they happen to put chemists and messengers in the same class?

Admiral PEOPLES. It comes under the general term which covers the classified force of all of those people who are under the Civil Service. That has been the wording under that limitation for years and years, sir.

The CHAIRMAN. That includes practically the whole Civil Service force of the Navy?

Admiral PEOPLES. All under the Bureau of Supplies and Accounts in the navy yards and stations and the cost inspection force at all shipbuilding plants where cost-plus contracts are in force.

The CHAIRMAN. This is not confined to the Bureau of Supplies and Accounts; it applies to all the bureaus, under the direction of the Secretary of the Navy, in the supply and accounting department of the Navy, navy yards, navy stations, and disbursing offices?

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. I suppose that would be under the heading of the Bureau of Supplies and Accounts, would it not?

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. The Secretary's letter goes into detail on that, and we will consider it.

Admiral PEOPLES. It goes into the greatest detail, Senator.

FREIGHT, BUREAU OF SUPPLIES AND ACCOUNTS.

The CHAIRMAN. What is the next item?

Admiral PEOPLES. The next item is "Freight, Bureau of Supplies and Accounts." This appropriation covers the total charges of all freight or materials that are used by all bureaus and offices in the Navy Department. It is all centralized right here——

Senator BALL. All except coal?

Admiral PEOPLES. Yes, sir. Coal is such a large item by itself, that it is covered by a separate appropriation.

Under the appropriation, "Freight," the expenditures for 1921 are at the rate of $7,600,000. The amount carried in the pending bill is $4,000,000, which we think is too large a reduction if a deficiency is to be avoided.

I might go into detail showing the anticipated movements of freight as to rail and coastwise water shipments, etc., if the committee wishes.

The CHAIRMAN. That is only $1,000,000 under the estimated amount?

Admiral PEOPLES. Yes, sir. The estimated amount was $5,000,000.

The CHAIRMAN. And it is twice as much as was appropriated last year?

Admiral PEOPLES. With a deficiency, Senator, of $5,000,000 this year. In other words, $7,000,000 has been appropriated——

The CHAIRMAN. How is there such a discrepancy between the estimate and the expenditure?

Admiral PEOPLES. The Secretary thought that $2,000,000 would be sufficient, sir, but it was wholly insufficient, necessitating a second appropriation carried in this present bill of $5,000,000, or a total of $7,000,000.

The CHAIRMAN. What is your best judgment as to what the cost will be this coming year?

Admiral PEOPLES. My best judgment, sir, is that it will require $5,000,000, because there has been an increase in freight rates. If there should be a reduction in freight rates, of course it will affect this.

Senator HALE. Is there a letter from the Secretary on that?

Admiral POEPLES. Not on that particular point, sir; no. The Secretary preferred that I bring up that item of $1,000,000 additional, under "Freight," in discussion before the committee. He did not cover it by a separate letter.

The CHAIRMAN. You have covered it all in your statement?

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. The next item is "Fuel and transportation."

FUEL AND TRANSPORTATION.

Admiral PEOPLES. Under the heading of "Fuel," this appropriation covers so many thousands of tons of coal and so many million barrels of oil. There are certain other minor items of charge, but 99 per cent of it is for coal and oil. The amount of coal and oil that the fleet is going to consume will depend entirely upon the number of men in the Navy which will affect the number of ships in commission. In other words, the quantity of coal and oil to be consumed will depend entirely upon the number of ships in commission and the amount of steaming to be done by each one of those ships.

No change of policy is contemplated with respect to the amount of steaming of the fleet which will be required in 1922 as compared with 1921, or, in fact, with 1920.

The amount carried by the present bill in line 7, page 30, of $17,500,000 is wholly inadequate to furnish the amount of fuel that is required.

The original estimate for fuel was $37,000,000. There was some discussion before the House Appropriations Committee as to the amount of steaming that would be required by the fleet in 1922, as a result of which the Chief of Naval Operations, who is responsible for the operation of the fleet, and the Acting Paymaster General, who is responsible for the amount of provisions to be furnished for the fleet, had prepared a statement which should be inserted in the record in order that the conditions can be fully explained.

The CHAIRMAN. Let it be inserted.

Admiral PEOPLES. It explains it in detail. Do you wish it read, sir?

The CHAIRMAN. No; it is not necessary.

Admiral PEOPLES. It explains in detail the exact situation.

(The statement referred to will be found at the end of Admiral Peoples's testimony of this date.)

The CHAIRMAN. What have you to say with regard to the comment of the House committee to the effect that the lessened number of men provided for in the House bill lessens the amount necessary for fuel, and that the Chief of Naval Operations stated in the hearings that the general principle governing the expenditure for fuel is based on a vessel's spending about two days in port to one day steaming at sea?

Admiral PEOPLES. That is fully explained in the memorandum which I have referred to. The expression "a day's steaming at sea" is open to two interpretations. The Chief of Naval Operations had in mind a full day of 24 hours. The estimate was based on a steaming day, which comprises six and two-thirds hours steaming at the rate of 15 knots. In other words, the two factors are entirely different. The estimates were based on the actual consumption of the fleet for 1921. The estimates for 1922 are based on the same factors, which are fixed; that is, the actual consumption of the fleet itself.

The CHAIRMAN. I would like to ask Admiral Coontz in that immediate connection to what extent the reduction of the personnel, in case it should be reduced, would affect the consumption of fuel.

Admiral COONTZ. The reduction in personnel, Senator, would reduce the number of ships in commission or in reserve and, correspondingly, the number of men at sea, and therefore those ships would fall out of the steaming.

The CHAIRMAN. Does it not take just as much coal to keep a ship steaming with a few men on board as it does with a good many?

Admiral COONTZ. Yes, sir. Naturally, though, if we cut down in the personnel we have got to lay up some of the ships.

I should like to explain that this was a most unfortunate thing that came up in the committee. When at sea we speak of a day as 24 hours, and we have got to steam at night as well as in the daytime. Apparently, Mr. Kelly had the idea that as I said we would steam only one day in three we intended to do less steaming. He consequently cut the appropriation about half.

Admiral PEOPLES. Even on tha basis I can not reconcile the amount for fuel of $17,500,000 with any of the figures which appeared in the testimony before the House Appropriations Committee.

The CHAIRMAN. What is the minimum amount, according to your judgment, that you will absolutely require?

Admiral PEOPLES. The Chief of Naval Operations has furnished a list of the ships to be kept in full commission, with a Navy of 100,000 men: that is, 317 ships in full commission, 66 ships in reserve. The fleet will burn in coal, oil, and gasoline $29,275,604 worth.

Senator HALE. That is on the 100,000 basis?

Admiral PEOPLES. Yes, sir. On the basis of 110,000 men it will be $32,223,134.

Senator HALE. How about 120,000 men?

Admiral PEOPLES. The total will be $34,250,660.

I have here some tables of figures showing by dreadnaughts, cruisers, destroyers, submarines, etc., the actual quantities of coal required.

The CHAIRMAN. Will you put that into the record?

Admiral PEOPLES. Aye, aye, sir.

(The tables referred to will be found at the end of Admiral Peoples's testimony.)

The CHAIRMAN. Is there anything further under this head that you wish to call to our attention?

Admiral PEOPLES. There is an important item that was omitted by the House committee. For several years there had been a proviso in the appropriation bill which reads as follows:

Provided, That the United States Shipping Board shall not require payment from the Navy Department for the charter hire of vessels furnished or to be

furnished from July 1, 1918, to June 30, 1921, inclusive, for the use of that department when such vessels are owned by the United States Government.

That is, for vessels taken over from the Shipping Board on a bare basis the Shipping Board has not been reimbursed against the naval appropriation. There are five such Shipping Board tankers now under the jurisdiction of the Navy Department, the *Alameda*, *Patoka*, *Ramapo*, *Sapelo*, and *Trinity*.

We recommend that the date be extended to June 30, 1922, which will save $1,365,000, which sum should be added to the totals I have already given you, sir, if that provision be not incorporated into the bill.

The CHAIRMAN. Those tankers are now under the control of the Navy Department?

Admiral PEOPLES. Yes, sir; they are and have been.

The CHAIRMAN. They are being used by the Navy?

Admiral PEOPLES. Yes, sir.

The CHAIRMAN. Oil tankers?

Admiral PEOPLES. Oil tankers for carrying fuel oil from point to point. The number of naval tankers at the disposal of the Navy Department are inadequate to handle the amount of oil that is to be moved.

Senator HALE. And that will save $1,365,000? If this is added it will mean that we can reduce the appropriation?

Admiral PEOPLES. Just the other way around, Senator. If it is not added, $1,365,000 will have to be added to the totals which I have given, sir.

The CHAIRMAN. Is that all, Admiral?

Admiral PEOPLES. The is another item, Mr. Chairman, that is in the bill 15994, section 3. The Secretary has addressed a letter to the committee recommending that the clothing and small stores fund be increased out of any funds in the Treasury not otherwise appropriated so as to equal the value of the stock on hand in the clothing and small stores account on March 31, 1921. The wording in the Secretary's letter is the same as the present law. This proviso was put into the 1921 bill in order to avoid an appropriation amounting to about $7,000,000, and the naval bill as it passed the House contains no such proviso. For many years the law has authorized an outfit on original enlistment to every enlisted man amounting to about $100——

Senator SWANSON. You mean that you want us to put in the same language that was in the bill last year?

Admiral PEOPLES. Except this, that we think it is better, if that be done, to adopt the language as proposed by the Secretary.

Senator SWANSON. What is the difference?

Admiral PEOPLES. The proposition as submitted by the Secretary will be to increase the amount of the clothing fund from $42,500,000 up to the total value of the stocks on hand which are now, or, rather, on March 31, 1921, will be about $61,000,000. The amounts of those stocks will be reduced year by year, depending upon the number of enlisted men to be outfitted.

The CHAIRMAN. What would be the effect if this section 3 is not incorporated?

Admiral PEOPLES. If that be not incorporated, sir, every newly enlisted man in the Navy will not be given his outfit of $100 worth of clothing.

Senator HALE. He will be in the same situation that he is in now?

Admiral PEOPLES. No; he gets it now, up to June 30, 1921.

Senator SWANSON. You have a large amount of clothing which you have accumulated for a great many years?

Admiral PEOPLES. During the war.

Senator SWANSON. You outfit every newly enlisted man from what you have accumulated during the war?

Admiral PEOPLES. Yes, sir.

Senator SWANSON. Instead of getting an appropriation to pay him $100 and buy the clothes, you just take them out of the clothing that you have accumulated?

Admiral PEOPLES. Out of the fund on hand.

The clothing and small stores fund in the Navy, different from the Army, has been a self-sustaining fund ever since it was originally established 20 or 30 years ago. The enlisted man in the Navy must pay out of his own pocket for the cost of his uniforms, with the exception of his first outfit, which is furnished him by the Government at a cost of not more than $100.

We recommend that it be inserted there, because it will affect the recruiting very seriously and will take away from every enlisted man something which he has now.

The CHAIRMAN. Are they not furnished with this clothing under a permanent law?

Admiral PEOPLES. The permanent law establishes the clothing fund, Mr. Chairman.

The CHAIRMAN. It authorizes and provides what shall be allowed to an enlisted man?

Admiral PEOPLES. This year only.

The CHAIRMAN. This year only. Is there not a permanent provision?

Admiral PEOPLES. No; the amount of clothing furnished the enlisted men has been authorized by law for about 20 years.

The CHAIRMAN. It is still in effect and will remain in effect unless it is repealed, will it not?

Admiral PEOPLES. No; it has been carried into the appropriation law.

The CHAIRMAN. It ought to be put on a permanent basis. It ought not to be necessary every year to pass a law on that subject.

Admiral PEOPLES. That is true, sir.

The CHAIRMAN. I wish you would consider that. This does not affect the allowances to the men. The law providing for what the men shall be allowed is still in effect?

Admiral PEOPLES. It does not affect in any way, Senator, the authorization under permanent law that every newly enlisted man is entitled to an outfit amounting to $100. That was increased from $60 about four years ago; but the clothing fund must be reimbursed by appropriations or otherwise. For the outfit to first-enlisted men up to 1921 there has been a special appropriation to reimburse the clothing fund.

The CHAIRMAN. It is not so much a question of what the men get as it is a question of taking care of the clothing fund?

Admiral PEOPLES. That is it, exactly, sir.

The CHAIRMAN. I understand it now, I think.

Senator SWANSON. You want to make it permanent instead of temporary?

Admiral PEOPLES. The permanent law authorizes an allowance of a hundred dollars to each enlisted man. What we are trying to do is——

The CHAIRMAN. I understand it, Senator. I think I can state it in very plain language.

When we take $100 worth of clothing and equipment out of the stock on hand and supply a man with it, the clothing and small stores' fund should be credited with that amount.

Senator SWANSON. You have a fund from which you furnish clothing, and it is a revolving fund?

Admiral PEOPLES. Yes, sir.

Senator SWANSON. When you give a newly enlisted man his first suit, you want to charge that to that fund?

Admiral PEOPLES. Yes, sir.

Senator SWANSON. How are your reimbursed?

Admiral PEOPLES. That is the point, Senator. Sooner or later, five, six, or seven years after the stocks of clothing on hand are reduced, year by year, down to some point which will determine the total amount of the fund, it will then be necessary to make a direct appropriation to reimburse the fund.

Senator SWANSON. But it will save you an appropriation up to this time. That is what we did last year and you want it done this year?

Admiral PEOPLES. Exactly, sir.

The CHAIRMAN. Are there any other points to which you desire to call our attention?

Admiral PEOPLES. Senator, I have here a statement showing in condensed form the total increases under the various appropriations which I have covered for 110,000 men and 120,000 men. The sum total increase will be $14,076,400.

The CHAIRMAN. For how many men?

Admiral PEOPLES. One hundred and ten thousand men; and $25,231,800 for 120,000 men.

The CHAIRMAN. Have you an extra copy of that?

Admiral PEOPLES. I will put that right into the record.

The CHAIRMAN. I want it to go into the record, but I thought that if you had an extra copy I would like to have it now.

Admiral PEOPLES. Yes, sir.

(The statement referred to is as follows:)

Comparison of estimates for 1922 under cognizance of Supplies and Accounts.

	Basis of 100,000 men.	110,000 men.	120,000 men.
Pay of the Navy	$141,069,045	$148,757,445	$156,445,845
Increase		7,688,400	15,376,800
Provisions, Navy	25,055,267	27,245,267	29,435,267
Increase		2,190,000	4,380,000
Maintenance, Supplies and Accounts	9,000,000	9,250,000	9,500,000
Increase		250,000	500,000
Freight, Supplies and Accounts	5,000,000	5,000,000	5,000,000
Fuel and transportation	29,275,000	32,223,000	34,250,000
Increase		3,948,000	4,975,000
Total increase		14,076,400	25,231,800

Admiral PEOPLES. There is one point, Mr. Chairman, that I did not bring out when I was discussing "Maintenance, Supplies and Accounts." For 110,000 men there will have to be $250,000 added to the total of $9,000,000, and for 120,000 men there will have to be added $500,000. That is under "Maintenance, Supplies and Accounts," sir. That is dependent, to a certain extent, but to a minor extent, upon increases in personnel.

On that particular point, Senator, I wish to point out this fact, that under the freight and fuel provisions which we have been discussing the statutes authorize that in case of absolute necessity or where the appropriations are insufficient, deficiency appropriations; but a deficiency is not authorized by law under "Maintenance, Supplies and Accounts." Therefore it is vital that the appropriation be sufficient to cover the supply, accounting and disbursing activities of the Navy.

Under the centralized system of supply and accounting and disbursing, all the business of the Navy Department and at the navy yards must necessarily be handled through and under this limitation which we have asked to be increased, as stated previously in the hearings; that is, to $5,200,000, which is the sum plus deficiency for 1921. It will be impossible to get along with a less sum than that. We tried to do it this year. Cuts were made on the 1st of July and about the 1st of September, and the chief of every bureau in the Navy Department complained to the Secretary that they were not getting the reports necessary by which they could control expenditures under their appropriations by reason of the fact that they were not getting reports from the accounting officers at the navy yards; pay rolls were delayed; ships were not fitted out promptly, and there had been complaints all along the line—so much so that the Secretary authorized, under the act of 1906, an increase in the limitation, and to go to the Congress this year to increase that by law, which was done. The first deficiency bill carries with it $5,200,000. That is an increase of $1,700,000 over the three and a half millions carried in this bill. That sum we ask for 1922. It would be impossible to get along with a sum less than that, sir.

The CHAIRMAN. Admiral Coontz, I wish you would take a copy of this bill, H. R. 15994, that provides for naval legislation, and be prepared to advise us on Monday morning, if you can, what portions of it, if any, are important to be enacted at this session of Congress.

Admiral COONTZ. Very good, sir.

Admiral PEOPLES. I would like to insert in the record, with your permission, the Secretary's letter with reference to "Maintenance, Supplies and Accounts," because it is very vital.

The CHAIRMAN. I would like to have that put in.

Admiral PEOPLES. It is rather lengthy, and intentionally so, in order that the committee might know exactly why the money is necessary, and where it is going, place by place and point by point. It does not increase the force; it merely permits us to maintain the present force we have.

Senator SWANSON. What did the House do?

Admiral PEOPLES. They made the same mistake that was made last year.

Senator SWANSON. How much do you want?

Admiral PEOPLES. $5,200,000.

The CHAIRMAN. I understand on some of the other accounts you incurred deficiencies, but not in this?

Admiral PEOPLES. Yes, sir.

Senator HALE. You did incur it last year?

Admiral PEOPLES. We did incur some tremendous deficiencies, as shown in the item of fuel. There was $10,000,000 appropriated. The first deficiency bill carried $20,000,000 deficiency, making a total of $30,000,000 in 1921.

Senator HALE. How do you distinguish between an item as to which you can incur deficiency and one where you do——

Admiral PEOPLES. The special statute authorizes deficiency in fuel, subsistence, and transportation.

Senator HALE. I am aware of that, but you incurred deficiencies in the others just the same?

Admiral PEOPLES. No, sir.

Senator HALE. Did you not in this particular case?

Admiral PEOPLES. No, sir.

Senator HALE. I thought you said you did last year.

Admiral PEOPLES. We were running beyond the limitation but keeping within the total of the appropriation, Senator.

Senator SWANSON. I notice that nearly all of these estimates have some deficiency. Are they all allowed under the law?

Admiral PEOPLES. Deficiencies are allowed under the law only with reference to freight, fuel, subsistence, transportation of officers and men and commodities, and losses on exchange.

(The papers submitted by Admiral Peoples are as follows:)

NAVY DEPARTMENT,
Washington, February 15, 1921.

MY DEAR MR. CHAIRMAN: Certain changes and increases are necessary in the naval bill (H. R. 15975) as it passed the House of Representatives, under items pertaining to the Bureau of Supplies and Accounts, in order to make appropriations which are in balance with the remainder of the naval bill, and it is recommended that these changes be made when the bill is taken up for consideration by your committee.

PAY OF THE NAVY.

For "extra pay to men reenlisting under honorable discharge" the sum of $4,390,800 is provided. The estimate submitted by the Bureau of Supplies and Accounts, based upon the reenlistment gratuities authorized under existing law, was $6,447,360, and this amount was reduced by the House Committee on Appropriations, as is shown at page 826 of the hearings, in the sum of $2,056,650, with the idea that legislation would be passed so that men who had served only two years and reenlist would be paid a two-months' gratuity instead of a four-months' gratuity. Unless existing law is changed, the increased amount will be necessary to pay the reenlistment gratuity to men expected to reenlist during the fiscal year 1922.

The proposed legislation on which the reduction of $2,056,650 was based appears as section 6 in the bill (H. R. 15994) reported to the House of Representatives February 4, 1921, which reads as follows:

"That hereafter no enlisted man in the Navy shall be paid a reenlistment gratuity, or any proportionate part thereof, in excess of an amount equal to one month's pay for each year of service in the last expiring enlistment of such enlisted man."

Under the item for "retainer pay and active service pay for members of the Naval Reserve Force" the sum of $17,490,307 was originally estimated as required; but, as a result of reductions in numbers of Reserve officers expected

to be on active duty, the probability that practically none of the reservists would perform active duty under training during 1922, and anticipated legislation reducing the retainer pay for officers and men confirmed in rating to one month's pay instead of two or more months' pay, and by making practically no provision for the payment of $1 a month to members of the Naval Reserve Force not confirmed in their rating, the total was reduced to $7,000,000 by the House. A comparative statement of the original estimate and the revised estimate based on a reduced number of officers and the reduction of the retainer pay by one-half is as follows:

No.	Item.	Original estimate.	Revised estimate.
1	Pay of officers on active duty	$1,714,557	$1,017,000
	Retainer pay:		
2	Officers' active-duty pay under training	854,105	854,105
3	Officers confirmed	3,416,422	1,708,211
4	Officers not confirmed	120,000	120,000
5	Enlisted men, active-duty pay	2,461,200	2,461,200
6	Enlisted men confirmed	8,204,023	4,102,011
7	Enlisted men not confirmed	720,000	720,000
	Total	17,490,307	10,982,527

Of the foregoing revised estimates, items 1, 3, and 6 were allowed in the House, with an additional sum of $172,778 to give the round figure of $7,000,000 for active duty and retainer pay of the Naval Reserve Force.

The House Committee on Naval Affairs had under consideration at the present session legislation for reducing the retainer pay of officers and enlisted men of the Naval Reserve Force who have been confirmed in their ratings to one month's base pay in lieu of the retainer pay authorized under existing law, but decided not to recommend such legislation at this session. In the absence of such legislation the amount provided for retainer pay and active-service pay of members of the Naval Reserve Force should be increased by the sum of $5,810,222 so as to make the total $12,810,222, instead of $7,000,000 as carried in the bill.

If neither of the legislative provisions referred to above are incorporated in the naval bill or become law at the present session, the foregoing increases should be made and the total appropriation increased by $7,866,782, or from $133,202,263 to $141,069,045.

PROVISIONS, NAVY.

For subsistence of the Navy the House of Representatives has allowed $20,609,672.50, the report stating that the reduction under the estimates is due to providing for fewer men and allowing 50 cents instead of 68 cents as the cost of the ration. It also states that the prices of provisions were extraordinarily high in 1918 and it does not seem unreasonable to anticipate a decline very near to the 1918 level during the next fiscal year.

It is correct that the original estimates provided for the subsistence of 143,000 men and that a reduction in the appropriation could be made because of providing for only 100,000 men. There is, however, no apparent justification for computing the cost of the ration in 1922 at 50 cents. As a matter of fact, during the fiscal years 1918 and 1919 the prices of provisions were fixed by the Government, and in 1920, immediately after the cessation of price fixing, the prices of practically all food materially increased in cost to the Navy, which is in part responsible for the increased cost of the ration during 1920 and the current fiscal year. The cost of the Navy ration during 1920 was $0.7055, and during the first quarter of 1921 was $0.7454. Preliminary returns received for the second quarter of the current fiscal year indicate decreases in cost in some instances and increases in others There is no information available upon which to base a positive statement or estimate that the Navy can be subsisted during 1922 at a less cost than 68 cents per man per diem, and there is every reason to believe that the sum of 50 cents per ration will be totally inadequate

The law authorizes a larger quantity of provisions per diem to the Navy's enlisted man—amounting approximately to 35 per cent more—than to the Army's enlisted man Using the same units of cost, the quantities authorized

by law for the enlisted man of the Navy will cost 49.14 per cent more than the quantities authorized by law for the enlisted man of the Army These figures are actual, from the actual costs of the ration components and the Army ration for 1922 having been fixed at 42 cents, the Navy's ration should be at least 63 cents, due allowance being given to the fact that concentrated foods cost more than fresh foods; and because there is a larger proportion of small units in the fleet, it costing at least 25 per cent more, in proportion, to maintain a small mess of 100 men, as on a destroyer, than it does a battleship mess of 1,200 men.

The enlisted man of the Navy is accustomed to a certain standard of food; his contract of enlistment with the Government provides that a certain quantity shall be issued to him. The quality of the Navy's food is and has been such as to establish its reputation as the best-fed Navy in the world.

The only way to reduce the cost of the Navy ration—other than such reductions as can be made through reductions in prices and by careful purchasing—would be to reduce the quantity and the quality and such a step would, it is believed, be disastrous.

A further item of reduction by the House was in fixing 60 cents as the amount to be charged against "Provisions, Navy," and credited to the Naval Hospital fund on account of sick in hospital, as against $1 recommended in the estimates—the actual cost of subsistence of sick in hospital being in excess of $1 per diem, because of the special diets which have to be provided.

The House Committee on Naval Affairs in the bill (H. R. 15994) as reported to the House February 4, 1921, in section 9 recommends the fixing during the fiscal year 1922 of the commuted ration for officers and men at $0.68 per diem, for midshipmen at $1.08 per diem, and for sick in hospital at $1 per diem, which, with the exception of the commuted ration on account of sick in hospital, is the same as for the current fiscal year.

The following is a comparison of the details of the amount allowed by the House and the amount recommended to be allowed on a basis of 63 cents as the cost of the ration, with commutation at the rates specified in the preceding paragraph:

No.	Item.		At 50 cents.	At 63 cents.
1	100,000 men Regular Navy and 2,500 marines serving afloat, total 102,500 men		$19,218,750	$23,569,875
2	1,510 warrant officers entitled to rations		283,125	374,782
3	2,500 midshipmen entitled to rations at $1.08 per diem ($394.20 per annum)		965,500	965,500
4	1,300 general court-martal prisoners at 30 cents per diem ($109.50 per annum)		142,350	142,350
5	90 nurses on detached duty at $2.50 per diem ($912.50 per annum)		82,125	82,125
6	624 nurses at hospitals at $1 per diem ($365 per annum)		227,760	227,760
7	Difference account $1 and 63 cents per diem for 1,475,000 sick in hospitals		14,750	545,750
8	Subsistence of men on detached duty:	Per year.		
	10, at $5 per day	$10,250		
	200, at $4 per day	292,000		
	15, at $3 per day	16,425		
	1,500, at $2.50 per day	1,368,750		
	600, at $1 per day	219,000		
	Total (2,325)	1,914,425		
	Less subsistence in kind at 50 cents	435,095	1,479,330	
	Less subsistence in kind at 63 cents	534,405		1,380,020
9	Labor at navy yards handling provisions		600,000	600,000
			23,033,690	27,908,162
	Less value of stocks estimated to be on hand June 30, 1921, in excess of requirements for 100,000 men		1,800,000	1,800,000
	Amount required		21,233,690	28,108,162

The amount actually carried in the House bill is $624,017.50 less than the amount shown above as required on the basis on which the appropriation is supposed to be made and the reason for this further reduction is not known.

The appropriation "Provisions, Navy," should be increased from $20,609,672.50 to not less than $26,100,000, and it will be possible to keep within this latter amount only in the event of a decided decrease in prices of foodstuffs during 1922.

MAINTENANCE, SUPPLIES, AND ACCOUNTS.

With respect to the appropriation "Maintenance, Supplies, and Accounts, 1922," it is recommended that the limitation for pay of chemists, and clerical, inspection, and messenger services be increased from $3,500,000 to $5,200,000 without increasing the total of the appropriation.

The reasons for this increase are as follows:

(*a*) The amount expended for this purpose for the fiscal year 1920 was $10,125,000. The estimate submitted, originally, by the Paymaster General of the Navy was $5,900,000, but was reduced by me to $3,500,000, in the hope that expenditures could be kept within that limitation; but subsequent developments have conclusively shown this sum to be insufficient and that the reduction made was not justifiable and was out of proportion to the reductions for classified employees for 1921 as compared with the amounts expended in 1920 for other bureaus, indicated as follows:

	Per cent reduction.
Bureau of Construction and Repair	11.4
Bureau of Engineering	25.01
Bureau of Ordnance	35.7
Bureau of Supplies and Accounts	62.7

(*b*) Under the centralized system of supply, disbursing, accounting, and cost inspection in the Navy, this appropriation renders combined service for every bureau and office of the Naval Establishment and not specially for the benefit of the Bureau of Supplies and Accounts. All funds appropriated for the maintenance and upkeep of the Fleet and of navy yards and stations, both in personnel and matériel, are directly reflected in the work under the jurisdiction of the Bureau of Supplies and Accounts, and it must necessarily be allowed sufficient funds for its maintenance. Otherwise, the other bureaus of the department can not control the appropriations under their cognizance.

(*c*) Effective July 1, 1920, allotments under the Supplies and Accounts limitation were reduced so as to keep within the limit of the approrpiation for the fiscal year 1921, the working forces being reduced from 40 to 76 per cent. Toward the end of August, 1920, complaints were made to me by the various bureau chiefs that they were not receiving the data necessary to permit proper control by them over their work in the navy yards or over their appropriations. Also delays were complained of in making issues of supplies to the fleet and to industrial departments and delays in payment of the mechanical forces and to contractors for material delivered, all brought about through the reduced forces in the disbursing, accounting, and supply departments at the various yards and stations. As the result of this condition and with the concurrence of the advisory council, authority was granted September 2, 1920, to make allotments for classified forces at navy yards in excess of the limitation in the appropriation, so as to bring the work up to date and keep it current, this authority being issued under section 3679 of the Revised Statutes as amended by the act of February 27, 1906.

(*d*) No reductions have been made in the amount allowed for classified employees for 1922 under the appropriations of the other bureaus, and because of reduced appropriations for various objects of expenditure it will be necessary to furnish more detailed reports in order to permit closer supervision over expenditures from naval appropriations so as to get the greatest benefit from them. For this reason the present force in supply, disbursing, and accounting departments at the yards and stations can not be materially reduced.

(*e*) To indicate further this fact, a comparison of the services required under this appropriation in the year 1916, as compared with the year 1922, will be made.

Since 1916 there have been added new activities, namely:

1. Cost-inspection forces at shipbuilding plants responsible for determining the costs under cost-plus contracts for battleships and battle cruisers aggregating $270,000,000 in value. The cost-inspection force alone under this limitation costs, for 260 employees $390,000
2. By transfer from other appropriations (Construction and Repair, Engineering, Ordnance, and Yards and Docks) the cost of the clerical forces in the yard-accounting departments, centralizing them under "Maintenance, Supplies and Accounts," for the present year amounts, for 705 employees, to 1,056,500
3. By transfer from the appropriation "Pay, miscellaneous", to "Maintenance, Supplies and Accounts," of the clerical force in Navy purchasing, disbursing, allotment, and retainer pay offices amounts, for 565 employees, to 883,000
4. Naval supply station, Hampton Roads, 133 employees 221,400

5. Naval aircraft factory, Philadelphia, 98 employees	$147,000
6. Navy supply depot, south Brooklyn, N. Y., 335 employees	475,000
7. Naval ammunition depots and naval hospitals, 40 employees	60,000
Total new activities, 2,136 employees	3,132,900

The following statement shows the activities under this appropriation for 1916 and 1922, both years at current rates of pay:

	1916		1922	
	Employees.	Salaries.	Employees.	Salaries.
Engaged on supply and disbursing work	574	$955,268	1,385	$2,077,500
Engaged on accounting work in navy yards	25	37,500	117	175,500
Total limitation	599	992,768	1,502	2,253,000
SUMMARY.				
Original activities	599	992,768	1,502	2,253,000
Additional activities	250	398,480	2,136	3,132,900
Total	849	1,391,248	3,638	5,385,900

Of the 3,638 employees for 1921, 1,271 are required for entirely new work and offices and 865 are accountable for by transfer from other appropriations—"Pay, miscellaneous," "Construction and Repair," "Engineering," "Ordnance," and "Yards and Docks"—since 1916, making a total of 2,136 employees to be provided for under "Maintenance, Supplies and Accounts, 1922," which, under the practice obtaining in 1916, would have been paid for under the annual appropriations of all the bureaus. Storemen, stockkeepers, and store laborers were not a part of the classified force in either of these years. In so far as the appropriation "Maintenance, Supplies and Accounts" is concerned, therefore, the classified force of 849 employees in 1916, as compared with the 3,638 for 1922, has increased 4.3 times, and the cost at actual current rates has increased from $1,391,248 in 1916 to $5,385,900, or 3.9 times as much for 1922; whereas the original activities chargeable in 1916 have increased only 2.5 times.

(*f*) The foregoing shows conclusively that the sum of $5,200,000 for the classified forces chargeable to this appropriation during the fiscal year 1922 is reasonable, economical, and justifiable by direct comparison with the charges under this appropriation in 1916. The sum of $3,500,000 is wholly insufficient.

(*g*) That the increase requested under the limitation for "Maintenance, Supplies and Accounts" is not excessive is further shown by a comparison of the limitations for classified employees under the various annual appropriations for 1916 and the limitations for 1916 adjusted on the basis of work transferred to "Maintenance, Supplies and Accounts" from other appropriations to 1922:

Title of appropriation.	1916.		Adjusted on basis of current rates of pay.	1922 appropriations.	Increase on adjusted basis.
	Amount.	Adjusted amount.[1]			
Pay, miscellaneous	$290,000	$189,000	$310,400	$1,750,000	2.6 times.
Construction and Repair	958,100	881,100	1,409,760	3,450,000	2.5 times.
Engineering	650,000	615,000	984,000	2,500,000	2.6 times.
Ordnance	468,000	430,000	688,000	2,000,000	2.9 times.
Yards and Docks	425,000	399,000	638,400	1,300,000	2.0 times.
Supplies and Accounts	643,000	920,000	1,391,248	3,500,000	2.5 times.
Total	3,434,100	3,434,100	5,421,808	13,500,000	2.5 times.

[1] On basis of work transferred to Supplies and Accounts from other appropriations.

(*h*) The foregoing comparison shows that the appropriation for 1922—with no allowance for the 1,271 employees on new activities which require $1,903,500—is just sufficient to take care of the increase in the work of the 1916 activities and that the additional amount requested is for the purpose of taking care of the new activities

assigned to Supplies and Accounts since 1916 for which no provision was made in the $3,500,000 limitation for 1922.

Sincerely yours,

_____,
Secretary of the Navy.

The Hon. CARROLL S. PAGE,
Chairman Committee on Naval Affairs,
United States Senate.

NAVY DEPARTMENT,
Washington, February 12, 1921.

MY DEAR SENATOR: It is my duty to invite your attention to the inadequacy of the amount provided for under the appropriation "Fuel and transportation," as contained in the naval appropriation bill for 1922, recently passed by the House of Representatives.

The attached sheets indicate the estimated requirements for fuel of the fleet to be in commission in the Navy during the fiscal year 1922, and the estimates are based on actual consumption of the vessels now in commission.

While there was some discussion during the hearings before the Appropriation Committee of the House concerning the policy of the Navy Department with regard to the amount of cruising to be required of the fleet during the fiscal year 1922, no change in the present policy is contemplated; in fact, none is possible if the interests of the United States are to be properly safeguarded.

The appropriation bill as passed omits the following provision which appeared in the appropriation for 1921:

"*Provided*, That the United States Shipping Board shall not require payment from the Navy Department for the charter hire of vessels furnished or to be furnished from July 1, 1918, to June 30, 1921, inclusive, for the use of that department when such vessels are owned by the United States Government."

This proviso was recommended for inclusion in the appropriation for 1922 for the reason that it would save the Navy appropriation the sum of $1,365,000, representing the charter hire on a bare boat basis in the case of the Shipping Board tankers *Alameda*, *Patoka*, *Ramapo*, *Sapelo*, and *Trinity*, all of which tankers will be required during the entire fiscal year 1922.

The fleet to be kept in commission for 1922 with 100,000 men will approximate the Fleet of 1921 with an average of 120,000 men. The fuel consumption of 1921 will amount to $38,450,000; that for 1922 is estimated to be $34,982,749.72, a conservative estimate. The appropriation as passed by the House of $17,500,000 is obviously wholly inadequate. To appropriate this sum only would seriously affect the cruising efficiency of the fleet, and I urge that the Senate increase the appropriation to the sum of approximately $34,000,000 and also restore the provision relative to employment of Shipping Board tankers by the Navy, as quoted in the preceding paragraph.

Sincerely, yours,

_____,
Secretary of the Navy.

The Hon. CARROLL S. PAGE,
Chairman Senate Committee on Naval Affairs,
Washington, D. C.

FEBRUARY 17, 1921.

Subject: Statutory limits for repairs and changes to vessels of the Navy.

MY DEAR SENATOR: The naval act of March 2, 1907, contained the following provision relative to repairs and changes on vessels of the United States Navy:

"That the Secretary of the Navy shall hereafter report to Congress at the commencement of each regular session the number of vessels and their names upon which any repairs or changes are proposed which in any case shall amount to more than $200,000, the extent of such proposed repairs or changes, and the amounts estimated to be needed for the same in each vessel; and expenditures for such repairs or changes so limited shall be made only after appropriations in detail are provided for by Congress."

The naval act of August 29, 1916, contained the following provision:

"The statutory limit of $200,000 for repairs and changes to capital ships of the Navy, as provided in the act making appropriations for the naval service for the fiscal year ending June 30, 1908, approved March 2, 1907, is hereby changed to $300,000."

In view of the provision in the naval act of August 29, 1916, quoted above, the present statutory limit for repairs and changes to ships of the Navy is $300,000. The cost of labor and materials has materially advanced since the enactment of the provision of August 29, 1916, and the vessels of the Navy are much larger in size than were the vessels at the time the limit of $300,000 was fixed.

Under the present law the department may expend upon a steel vessel in one year up to 20 per cent of her value provided the fixed limit, per act of August 29, 1916, is not exceeded; so, for vessels of less than $1,500,000 value, we can spend up to 20 per cent, while for the largest vessels now in service we can spend only 2 per cent in one year, an obviously inadequate amount.

In view of the foregoing it is strongly recommended that there be inserted, on page 30, following line 4, of the naval appropriation bill (H. R. 15975), as passed by the House, the following provision:

"The statutory limit of $300,000 for repairs and changes to capital ships of the Navy as provided in the act making appropriations for the naval service for the fiscal year ending June 30, 1917, approved August 29, 1916, is hereby changed to $500,000."

Sincerely, yours,

JOSEPHUS DANIELS,
Secretary of the Navy

Hon. CARROLL S. PAGE,
Chairman Senate Committee on Naval Affairs,
Washington, D. C.

Revised estimate for consumption of coal and fuel oil, fiscal year 1922, based on vessels being in a status of approximately 10 days at sea and 20 days in port.

	Coal.	Oil.
	Tons.	*Barrels.*
Battleships:		
17 in commission 1 year	45,257	779,945
2 in reserve 1 year	5,994	.....
Cruisers:		
1 in commission 1 year	10,920	.....
2 in commission 10 months	8,440	37,500
1 in commission 9 months	.....	33,750
1 in commission 8 months	5,768	.....
2 in commission 7 months	.....	52,500
2 in commission 6 months	4,450	22,500
1 in commission 5 months	2,810	.....
1 in commission 4 months	.....	15,000
1 in commission 3 months	1,710	.....
2 in commission 2 months	1,120	7,500
Destroyers:		
96 in commission 1 year	.....	1,042,196
202 in reserve 1 year	.....	548,228
Submarines:		
131 in commission 1 year	.....	95,000
8 in reserve 1 year	.....	2,000
Destroyer tenders:		
4 in commission 1 year	27,840	.....
2 in commission 1 year	.....	41,314
1 in commission 8 months	.....	15,493
Submarine tenders:		
2 in commission 1 year	.....	17,640
3 in commission 1 year	12,240	.....
1 shore base 1 year	.....	7,080
2 shore base 1 year	9,240	.....
9 Eagles	.....	26,742
Fleet repair vessels:		
2 in commission 1 year	.....	42,756
1 in commission 1 year	9,000	.....
Hospital ships, 2 in commission 1 year	9,360	.....
Supply ships:		
1 in commission 1 year	.....	15,960
3 in commission 1 year	7,920	.....
Target repair ships, 2 in commission 1 year	4,920	.....
Radio repair ships, 1 in commission 1 year	2,880	.....
Aircraft tenders, 1 in commission 1 year	.....	21,378
Aircraft carriers, 1 in commission 1 year	8,520	.....
Mine layers, 2 in commission 1 year	.....	42,756
Colliers, 8 in commission 1 year	39,064	.....
Oilers:		
9 in commission 1 year	.....	254,574
1 in commission 8 months	.....	18,858
Transports (cargo):		
7 in commission 1 year	31,978	.....
1 in commission 1 year	.....	25,718
Ammunition ships, 2 in commission 1 year	7,325	56,000
Gunboats:		
14 in commission 1 year	46,476	9,325
1 in commission 9 months	2,125	6,325
Survey ships, 2 in commission 1 year	8,760	.....
Fish commission, 2 in commission 1 year	19,300	.....
Station craft:		
11 in commission 1 year	25,740	.....
2 in commission 1 year	.....	14,100
Experimental ships, 1 in reserve 1 year	3,468	.....
Eagles, 40 in reserve 1 year	.....	33,050
Mine sweepers and tugs:		
35 in commission 1 year	.....	205,800
18 in reserve 1 year	.....	26,460
Seagoing tugs, 30 in commission 1 year	10,800	117,600
Harbor tugs, 60 in commission 1 year	.....	14,000
Miscellaneous, 35 in commission 1 year	33,150	.....
Total	406,575	3,649,048

406,575 tons coal, at $7.65 per ton $3,110,298.75
3,649,048 barrels oil, at $3.85 per barrel 14,048,834.80

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, February 7, 1921.

MEMORANDUM ON FUEL CONSUMPTION FOR OPERATING FORCES.

In the hearings before the subcommittee of the House Appropriations Committee, a statement was made by the Chief of Naval Operations that the fuel consumption of the fleet was based on vessels operating one day at sea to two days in port. A later statement from the Bureau of Supplies and Accounts representative before the subcommittee, relative to the basis for the estimates actually submitted for fuel consumption, indicated that the estimates were based on operations contemplating one day in port to two days at sea.

It appears that these two apparently contradictory statements have misled the committee into the possible belief that there was contemplated a change of policy in regard to operating vessels, which would reduce their cruising by one-half the amount which was used as a basis for estimating the fuel needs of the fleet for the coming fiscal year. In pursuance of this belief it appears that the allowance for fuel and transportation, in the bill reported out from the committee, was radically reduced from the original estimate.

As a matter of actual fact the two apparently conflicting statements are not actually in conflict when analyzed. There is no change of policy contemplated in operating the vessels of the fleet during the coming fiscal year. The actual estimates submitted to the committee were based on past performances and represent the estimated fuel consumption next year, based on the actual fuel consumption of vessels of the fleet over a period of about 18 months preceding September, 1920.

It has been found that the actual fuel consumption of the active fleet in the past amounts to what would have been consumed, if the vessel steamed six and two-thirds hours per day at 15 knots for 20 days and remained in port for 10 days. Roughly stated, this is two days steaming to one day in port, but it should be clearly understood that this rule was an outcome of information obtained after actual fuel used had been figured out, and that it contemplated six and two-thirds hours at 15 knots as constituting a steaming day.

The statement made by the Chief of Naval Operations to the effect that fuel can be calculated roughly on the basis of a ship steaming one day and remaining in port two days, is also capable of a similar kind of proof. In other words, a vessel steaming at economical speed—say 9 to 10 knots for 24 hours a day for 10 days, will burn about the same amount of fuel as a vessel steaming 20 days at six and two-thirds hours per day at 15 knots. Both rules are rough and ready means of making an estimate and they furnish a means of indicating for vessels of the active fleet the relative amount of steaming at sea and lying in port. The rule cited by Admiral Peoples has as its basis a steaming day which comprises six and two-third hours steaming 15 knots and it yields exceedingly accurate results where vessels of the battleship fleet are involved. It had its origin in data derived from actual performances in the fleet. The rule cited by the Chief of Naval Operations is more practical for a mixed force of vessels, including auxiliaries and small craft not capable of 15 knots speed. It was not cited to justify the estimates, but merely to give a rough idea of the cruising activities of the fleet. The actual estimates originally submitted to Congress are derived from actual past performances of the vessels involved, or the performances of vessels of a similar type to those involved. This fact should be clearly understood, and it should also be thoroughly understood that no change in the policy of operating the vessels of the fleet has been contemplated for next year, so far as the operations at sea are concerned.

The appended table contains comparative estimates showing the application of the two rules, as well as the estimates which would proceed from a misinterpretation of what might be called the "fuel-consumption" rule as compared with the "fleet-operations" rule.

R. E. COONTZ.
C. J. PEOPLES.

Statements in re estimates for the fiscal years 1921 and 1922 under the appropriation "Fuel and transportation."

FISCAL YEAR 1921.

Consumption based on actual expenditures to Dec. 31, 1920:	
Coal, 1,198,000 tons, at $7.60	$9,104,800.00
Fuel oil, 7,092,464 barrels, at $2.97	21,135,237.38
Gasoline, 6,658,216 gallons, at 27 cents	1,797,712.32
Maintenance, coaling plants	2,985,600.00
Tug and vessel hire, water, ice, and miscellaneous	3,426,740.00
Total	38,450,089.70
Consumption as per formula used by Atlantic Fleet, Operations and Supplies and Accounts, "two days at sea and one day in port":	
Coal, 1,143,267 tons, at $7.60	8,688,829.20
Fuel oil, 7,053,050 barrels, at $2.97	20,947,558.50
Gasoline, 6,658,216 gallons, at 27 cents	1,797,712.32
Maintenance, coaling plants	2,985,600.00
Tug and vessel hire, water, ice, and miscellaneous	3,426,740.00
Total	37,846,440.02
Appropriated act of June 4, 1920	10,000,000
Deficiency bill Feb. 1, 1921	20,000,000
Total	30,000,000
Navy Department deficiency estimate	27,438,000

FISCAL YEAR 1922.

Consumption of fuel according to formula—"Two days at sea and one day in port"—(i. e., a vessel steams 100 knots each day at sea at speed of 15 knots:	
Coal, 894,500 tons, at $7.65	$6,842,925.00
Fuel oil, 5,176,200 barrels, at $3.85	19,928,370.00
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	34,982,749.72
Consumption of fuel based on "two days in port and one day at sea" (i. e., a vessel steams 100 knots each day at sea at speed of 15 knots), as submitted by committee's instructions:	
Coal, 406,575 tons, at $7.65	3,110,298.00
Fuel oil, 3,649,048 barrels, at $3.85	14,048,834.00
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	25,370,586.72
Consumption of fuel based on "two days in port and one day at sea" (as stated by Admiral Coontz (i. e., a vessel while at sea steams 24 hours each day at economical speed):	
Coal, 805,790 tons, at $7.65	$6,164,293.50
Fuel oil, 5,958,552 barrels, at $3.85	22,940,425.20
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance of coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	37,316,173.42
Amount of appropriation bill as reported to House	17,500,000.00

Estimates of funds required under the appropriation "Fuel and transportation; 1922," based on information furnished by the office of the Chief of Naval Operations relative to status of vessels for varying number of personnel:

100,000 men, 317 ships in full commission, 66 ships in reserve—

Coal, 600,000 tons, at $7.65 per ton	$4,590,000.00
Fuel oil, 4,279,000 barrels at $3 85 per barrel	16,474,150.00
Gasoline, 7,744,436 gallons, at 27 cents per gallon	2,090,997.72
Maintenance coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	29,275,604.72

110,000 men, 324 ships in full commission, 264 ships in reserve—

Coal, 662,200 tons, at $7.65 per ton	5,065,830.00
Fuel oil, 4,921,000 barrels, at $3 85 per barrel	18,945,850.00
Gasoline, 7,744,436 gallons at 27 cents per gallon	2,090,997.72
Maintenance coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	32,223,134.72

120,000 men, 366 ships in full commission, 242 ships in reserve—

Coal, 662,200 tons, at $7.65 per ton	5,065,830.00
Fuel oil, 5,447,630 barrels, at $3.85 per barrel	20,973,375.50
Gasoline, 7,744,436 gallons, at 27 cents per gallon	2,090,997.72
Maintenance coaling plants	2,142,857.00
Tug and vessel hire, water, ice, and miscellaneous	3,977,600.00
Total	34,250.660.22

Status of vessels under varying number of personnel according to information received this date from the office of the Chief of Naval Operations.

	Personnel.				Personnel.		
	100,000 men.	110,000 men.	120,000 men.		100,000 men.	110,000 men.	120,000 men.
IN COMMISSION.				IN COMMISSION—contd.			
Battleships, first line	13	13	13	Ammunition ships	2	2	2
Cruisers (miscellaneous)	5	8	8	Flagships for foreign stations (Utah and Florida)	2	2	2
Destroyers, first line	80	80	122	Patrol craft	19	19	19
Submarines	87	87	87	Auxiliaries (survey ships)	2	2	2
Destroyer tenders	3	7	7	Fish Commission ships	2	2	2
Submarine tenders	5	5	5	Special duty craft (station craft)	13	13	13
Shore-based submarine tenders	5	5	5	Total	317	324	366
Repair ships	2	2	2	VESSELS IN RESERVE.			
Hospital ships	2	2	2				
Store ships	6	6	6	Experimental ship (Ohio)	1	1	1
Auxiliaries:				Battleships (midshipmen)	6	6	6
Target repair	2	2	2	Destroyers (50 per cent complements)		198	176
Radio repair	1	1	1	Submarines (training and reserve complements)	22	22	22
Aircraft tenders	2	2	2	Eagles	19	19	19
Aircraft carriers	1	1	1	Mine sweepers	18	18	18
Mine layers	2	2	2	Total	66	264	242
Mine sweepers and fleet tugs (12 for use with mine force)	35	35	35				
Colliers	9	9	9				
Oilers	11	11	11				
Transports and cargo ships	6	6	6				

Estimate of coal and fuel oil needs, fiscal year 1922, on basis of 100,000 men.

Type of vessel.	Number.	Period.	Coal.		Fuel oil.	
			Tons.	Value.	Barrels.	Value.
Dreadnaughts:						
In commission	4	1 year	80,000	$612,000	127,000	$488,950
Do	9	...do			871,000	3,353,350
In reserve	4	...do	55,700	426,105	151,000	581,350
Do	2	...do			142,700	549,395
Cruisers:						
In commission	1	10 months			50,000	192,500
Do	1	9 months			45,000	173,250
Do	2	7 months			70,000	269,500
Do	1	6 months			30,000	115,500
Do	1	4 months			20,000	77,000
Do	1	2 months			10,000	38,500
Destroyers in commission	80	1 year			1,139,000	4,385,150
Submarines:						
In commission	87	...do			63,000	242,550
In reserve	22	...do			5,500	21,175
Tenders (destroyer):						
In commission	2	...do			95,000	365,750
Do	1	8 months			40,500	155,925
Tenders (submarine):						
In commission	2	1 year			50,000	192,500
Do	3	...do	20,000	153,000	12,000	46,200
Shore based (tenders):						
In commission	1	...do			7,000	26,950
Do	2	...do	12,000	91,800		
Eagles in commission	2	...do			11,900	45,815
Repair ships in commission	2	...do	5,000	38,250	80,000	308,000
Hospital ships in commission	2	...do	14,000	107,100		
Store ships:						
In commission	5	...do	32,000	244,800		
Do	1	...do			55,000	211,750
Auxiliaries:						
Target repair, in commission	2	...do	5,000	38,250		
Radio repair, in commission	1	...do	4,500	34,425		
Aircraft tenders, in commission	1	...do	600	4,590	15,000	57,750
Aircraft carrier, in commission	1	...do			26,000	100,100
Mine layers, in commission	2	...do			75,000	288,750
Mine sweepers and fleet tugs:						
In commission	35	...do			286,000	1,101,100
In reserve	18	...do			36,000	138,600
Colliers, in commission	9	...do	97,000	742,050		
Oilers:						
In commission	9	...do			455,900	1,755,215
Do	1	...do	12,000	91,800		
Do	1	8 months			18,000	69,300
Transports, cargo:						
In commission	5	1 year	44,000	336,600		
Do	1	...do			76,000	292,600
Ammunition ships, in commission	2	...do	10,000	76,500	70,000	269,500
Flag ships, foreign stations, in commission.	2	...do	23,000	175,950	73,000	281,050
Patrol craft, in commission	19	...do	113,500	868,275	25,000	96,250
Survey ships in commission	2	...do	5,800	44,370		
Fish commission in commission	2	...do	25,000	191,250		
Station craft:						
In commission	11	...do	38,000	290,700		
Do	2	...do			19,000	73,150
Experimental ships in reserve	1	...do	3,000	22,950		
Eagles in reserve	19	...do			28,500	109,725
Total			600,000	4,590,000	4,279,000	16,474,150
						4,590,000
						21,064,150

If personnel of 110,000 men is authorized, the following changes in the foregoing will be necessary:

Add for 3 cruisers, 32,200 tons coal	$246,330
Add for 4 destroyer tenders, 30,000 tons coal	229,500
Add for 198 destroyers in reserve, 642,000 barrels oil	2,471,700
	2,947,530
Plus estimate for ships on basis of 10,000 men	21,064,150
	24,011,680

If personnel of 120,000 men is authorized, the following changes from the estimate for fuel needs of vessels based on 110,000 men will be necessary:

Add for 42 destroyers in commission, 597,954 barrels oil; deduct for 22 destroyers in reserve, 71,324 barrels oil; add the difference, 526,630 barrels oil	$2,027,525.50
Plus estimate for ships on basis of 110,000 men	24,011,680.00
	26,039,205.50

Type of vessel.	Number.	Period.	Coal.		Fuel oil.	
			Tons.	Value.	Barrels.	Value.
Dreadnaughts:						
In commission	6	1 year	111,000	$849,150	205,300	$790,405
Do	11	do			1,015,000	3,907,750
In reserve	2	do	8,000	61,200		
Cruisers:						
In commission	2	do	87,000	665,550		
Do	3	6 months	45,000	344,250		
Do	1	9 months	45,000	344,250		
Do	1	3 months	15,000	114,750		
Do	1	1 month	5,000	38,250		
Destroyers:						
In commission	196	1 year			1,355,000	5,216,750
In reserve	202	do			655,000	2,521,750
Submarines:						
In commission	131	do			95,000	365,750
In reserve	8	do			2,000	7,700
Tenders (destroyer):						
In commission	4	do	30,200	231,030	500	1,925
Do	2	do			95,000	365,750
Do	1	8 months			40,000	154,000
Tenders (submarine):						
In commission	2	1 year			50,000	192,500
Do	3	do	20,000	153,000	12,000	46,200
In commission (shore base)	1	do			7,000	26,950
In commission	2	do	12,000	91,800		
In commission (Eagles)	9	do			53,500	205,975
Repair (fleet):						
In commission	1	do	5,000	38,250	30,000	115,500
Do	1	do	9,000	68,850		
Do	1	do			50,000	192,500
Hospital, in commission	2	do	14,000	107,100		
Supply:						
In commission	1	do			55,000	211,750
Do	3	do	18,400	140,760		
Repair (target):						
In commission (radio)	2	do	5,000	38,250		
In commission	1	do	4,500	34,425		
Tender (aircraft), in commission	1	do	600	4,590	15,000	57,750
Carrier (aircraft), in commission	1	do			26,000	100,100
Mine layer, in commission	2	do			75,000	288,750
Colliers, in commission	8	do	86,300	659,195		
Oilers:						
In commission	9	do			455,900	1,755,215
Do	1	do	12,000	91,800		
Do	1	8 months			18,000	69,300
Transport cargo, in commission	8	1 year	124,500	952,425		
Ammunition ships, in commission	2	do	10,000	76,500	70,000	269,500
Gunboats:						
In commission	14	do	58,200	445,230	15,000	57,750
Do	1	9 months	2,000	15,300	10,000	3 [illegible]
Survey, in commission	2	1 year	5,800	44,370		
Fish Commission, in commission	2	do	25,000	191,250		
Station craft:						
In commission	11	do	38,000	290,700		
Do	2	do			19,000	73,150
Experimental, in reserve	1	do	3,000	22,950		
Eagles, in reserve	40	do			60,000	231,000
Mine sweepers and tugs:						
In commission	35	do			286,000	1,101,100
In reserve	18	do			36,000	138,600
Tugs (seagoing):						
In commission (harbor)	30	do	30,000	229,500	350,000	1,347,500
In commission	60	do			20,000	77,000
Submarine chasers, in commission	60	do				
Miscellaneous, in commission	35	do	65,000	497,250		
			894,500	6,842,925	5,176,200	19,928,370

Principal contracts and Navy orders at present in effect for delivery of coal, fuel oil, and gasoline.

COAL.

Contract or Navy order No.	Supplier.	Quantity per month.	Principal delivery points.	Present delivery cost.	Expiration.
		Tons.		*Per ton.*	
N. O. 6111	W. C. Atwater & Co	4,649	Hampton Roads, Va	$6.80	(1)
N. O. 6112	C. & O. Coal & Coke Co	3,400	do	6.80	(1)
N. O. 6113	Crozier-Pocahontas Co	9,050	do	6.80	(1)
N. O. 6114	Berwind-White Coal Mining Co.	9,200	do	6.80	(1)
		10,000	New York, N. Y	7.85	(1)
N. O. 6115	C. G. Blake Co	1,800	Hampton Roads, Va	6.80	(1)
N. O. 6116	Castner, Curran & Bullitt	11,350	do	7.224	(1)
N. O. 6117	C. & O. Coal Agency	3,200	do	6.80	(1)
N. O. 6118	New River Coal Co	1,300	do	6.80	(1)
N. O. 6119	Pocahontas Fuel Co	18,750	do	7.20	(1)
N. O. 6120	Smokeless Fuel Co	4,250	do	6.80	(1)
N. O. 6122	Houston Coal Co	5,550	do	7.40	(1)
N. O. 6123	Consolidation Coal Co	1,700	New York, N. Y	7.85	(1)
N. O. 6124	J. H. Weaver & Co	4,950	do	7.85	(1)
N. O. 6125	Quemahoning Coal Co	1,150	Philadelphia, Pa	7.43	(1)
N. O. 6126	Pennsylvania C. & C. Co	2,850	New York, N. Y	8.09	(1)
N. O. 6127	Logan Coal Co	200	Philadelphia, Pa	7.43	(1)
N O. 6128	Thorne, Neale & Co	1,000	New York, N. Y	8.09	(1)
		2,650	Philadelphia, Pa	7.67	(1)
N. O. 6130	Pennsylvania C. & C. Co	750	New York, N. Y	8.24	(1)
N. O. 6132	Flat Top Fuel Co	4,300	Hampton Roads, Va	7.25	(1)
N. O. 6133	Imperial Coal Corporation	950	Philadelphia, Pa	7.63	(1)
N. O. 6136	Henriette Coal Mining Co	550	New York, N. Y	6.19	(1)
N. O. 6137	Peale, Peacock & Kerr	3,050	Philadelphia, Pa	7.43	(1)
N. O. 6138	Rock Hill Iron & Coal Co	2,900	New York, N. Y	7.85	(1)
N. O. 6139	Stineman Coal & Coke Co	2,350	do	8.17	(1)
N. O. 6140	Central Pocahontas Coal Co	1,650	Hampton Roads, Va	7.24	(1)
N. O. 6141	Davis Coal & Coke Co	9,580	Philadelphia, Pa	7.91	(1)
N. O. 6143	W. H. Piper & Co	550	do	7.83	(1)
N. O. 6145	Shoemaker Coal Mining Co	1,050	do	7.43	(1)
N. O. 6147	Inland Coal Co	1,150	do	7.69	(1)
N. O. 6150	Pocahontas Coal S. Co	2,300	Hampton Roads, Va	7.43	(1)
N. O. 6151	Eastern Coal & Export Co	500	do	7.92	(1)
N. O. 6152	Fayette Smokeless Fuel Co	1,150	do	7.20	(1)
N. O. 6153	Leckie Coal Co	1,400	do	6.80	(1)
N. O. 6157	Consolidation Coal Co	1,100	New York, N. Y	7.85	(1)
N. O. 6158	L. A. Snead Co	2,250	Hampton Roads, Va	7.15	(1)
N. O. 6181	W. H. Bradford & Co	400	Philadelphia, Pa	7.43	(1)
N. O. 6182	W. A. Marshall Co	950	New York, N. Y	6.92	(1)
N. O. 6183	Sterling Coal Co	1,650	do	8.04	(1)
N. O. 6184	Baker-Whitelcy Coal Co	1,250	Philadelphia, Pa	7.25	(1)
N. O. 6185	Miller Coal Co	950	do	7.79	(1)
N. O. 6168	Hatfield & Hilles	350	do	7.82	(1)
N. O. 6191	Argyle Coal Co	350	do	7.68	(1)
N. O. 6192	Mountain Coal Co	1,050	do	7.75	(1)
N. O. 6194	Argyle Coal Co	100	do	7.68	(1)
N. O. 6239	C. A. Hughes & Co	2,550	do	7.43	(1)
N. O. 6315	A. McNeil & Sons Co. (Inc.)	250	Hampton Roads, Va	6.80	(1)
N. O. 6316	Dexter & Carpenter	1,236	do	6.80	(1)
N. O. 6317	Pawama Coal Co	500	do	6.80	(1)
N. O. 6318	Algonquin Coal Co	300	do	6.80	(1)
N. O. 6319	Raleigh Smokeless Fuel Co	1,550	do	6.80	(1)
N. O. 6322	Hulmer Coal & Transportation Co.	100	do	7.10	(1)
N. O. 6324	Interstate Coal & Dock Co	2,450	do	6.80	(1)
N. O. 6327	Meadow Fork Fuel Co	150	do	6.80	(1)
N. O. 6328	S. J. Patterson Co	1,700	do	7.47	(1)
N. O. 6330	Wyatt Coal Sales Co	1,250	do	6.80	(1)
N. O. 6331	Nottingham & Wrenn	100	do	6.80	(1)
N. O. 6334	Milwaukee Coke & Gas Co	700	do	7.21	(1)
N. O. 6335	Amherst Fuel Co	450	do	6.80	(1)
N. O. 6343	Bottom Creek Coal Co	850	do	6.80	(1)
N. O. 6346	Lanark Coal Co	200	do	6.80	(1)
N. O. 6347	Stover Coal Co	350	do	6.80	
C. 50854	W. G. Coyle & Co	12,000	New Orleans, La	[2] 7.60	Mar. 31, 1921
C. 50676	Chicago, Wilmington & Franklin Coal Co.	108,000	Great Lakes, Ill	[3] 4.888	Mar. 21, 1921

[1] Navy orders will remain in effect until law provisions revoked or suitable contracts are entered into.
[2] Total amount of contract, $9.
[3] Total amount of contract, $5.336.

NOTE.—The above delivery cost per ton includes freight rates of $2.80 per gross ton to Hampton Roads, Va.; $3.18 per gross ton to Philadelphia, Pa.; and $3.60 per gross ton to New York, N. Y. Where delivery costs of $6.80 per gross ton for delivery at Hampton Roads, $7.85 for delivery at New York, and $7.43 for delivery at Philadelphia ae shown, the suppliers concerned have not furnished sufficient data to enable modification of orders to cover recent advance in miners' wages.

Principal contracts and Navy orders at present in effect for delivery of coal, fuel oil, and gasoline—Continued.

FUEL OIL.

Contract or Navy order No.	Supplier.	Quantity per month.	Principal delivery points.	Present delivery cost.	Expiration.
		Barrels.		*Per barrel.*	
C-52458	Standard Oil Co. of California.	302,625	San Pedro, Calif.	$2.00	Mar. 31, 1921
52460	Union Oil Co.	225,000	Port San Luis.	2.00	Do.
52461	Associated Oil Co.	168,750	San Francisco (Port Costa).	2.00	Do.
52463	General Petroleum Corporation.	100,875	San Pedro.	2.00	Do.
52477	Atlantic Refining Co.	166,000	Philadelphia.	3.185	Sept. 30, 1921
52456	Gulf Refining Co.	962,000	Port Arthur.	2.45	Do.
52457	Texas Co.	2,000,000	do.	2.47	Do.
52476	Tidewater Oil Sales Corporation.	235,000	New York.	3.17	June 30, 1921
2853	New England Oil Corporation.	3,000,000	Fall River, Mass.	3.246	[2]

[2] Upon completion delivery. Contract renewable for 3,000,000 barrels at unit price of $3 per barrel.

GASOLINE.

		Gallons.		*Per gallon*	
52459	Standard Oil Co. of California.	543,000	San Pedro, Calif.	$0.255	Mar. 31, 1921
52462	Associated Oil Co.	250,000	San Francisco (Avon).	.245	Do.
52469	Atlantic Refining Co.	150,000	Philadelphia, Pa.	.265	June 30, 1921
52470	Standard Oil Co. of New Jersey	975,000	New York.	.275	Do.
52471	Standard Oil Co. of New York.	950,000	do.	.30	Do.
52472	Tidewater Oil Sales Corporation.	300,000	do.	.2825	Do.
52473	Texas Oil Co.	600,000	Port Arthur.	.23	Do.
52474	Magnolia Petroleum Co.	8,000	Fort Worth, Tex.	.26	Do.
52475	Gulf Refining Co.	170,000	Key West, Fla.	.30	Do.
2853	New England Oil Corporation	8,400,000	Fall River, Mass.	.20	[3]

[3] Upon completion delivery contract renewable for 8,400,000 gallons at $0.20 per gallon.

"Fuel and transportation, fiscal year 1922."

Consumption of fuel according to formula "2 days at sea and 1 day in port," i. e., a vessel steams 100 knots each day at sea at speed of 15 knots:

Coal, 894,500 tons, at $7.65	$6,842,925.00
Fuel oil, 5,176,200 barrels, at $3.85	19,928,370.00
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance of coaling plants	2,142,857.00
Tug and vessel hire, water, ice and miscellaneous	3,977,600.00
Total	34,982,749.72

Consumption of fuel based on "2 days in port and 1 day at sea," i. e., a vessel steams 100 knots each day at sea at speed of 15 knots, as submitted by committee's instructions:

Coal, 406,575 tons, at $7.65	3,110,298.00
Fuel oil, 3,659,048 barrels, at $3.85	14,048,834.00
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance and coaling plants	2,142,857.00
Tug and vessel hire, water, ice and miscellaneous	3,977,600.00
Total	25,370,586.72

Consumption of fuel based on "2 days in port and 1 day at sea" (as stated by Admiral Coontz); i. e., a vessel while at sea steams 24 hours each day at economical speed:	
Coal, 805,790 tons, at $7.65	$6,164,293.50
Fuel oil, 5,958,552 barrels, at $3.85	22,940,425.20
Gasoline, 7,744,436 gallons, at 27 cents	2,090,997.72
Maintenance for coaling plants	2,142,857.00
Tug and vessel hire, water, ice and miscellaneous	3,977,600.00
Total	37,316,173.42
Amount of appropriation bill as reported to House	17,500,000.00

STATEMENT OF REAR ADMIRAL D. W. TAYLOR, UNITED STATES NAVY.

The CHAIRMAN. We will take up the matter of Bureau of Construction and Repair.

BUREAU OF CONSTRUCTION AND REPAIR.

Admiral TAYLOR. The first item, Mr. Chairman, under that heading, is on page 31, line 22, an item of $22,500,000. There is a letter from the Secretary recommending that it be made $29,400,000. Our original estimate for 143,000 men was $35,800,000, as you see.

When we revised the estimates on the basis of 100,000 men and reduced them, we made them $31,400,000, and that was the basis of the discussion before the House committee. Included in that $31,400,000 was a provision for building yard craft, the construction of 10 self-propelled barges which the Bureau of Supplies and Accounts is very anxious for and which the Secretary has directed to be included in the estimates.

The House cut that out, leaving in an amount for the keeping in condition of hulls of the vessels of the Navy of $29,400,000, according to the revised estimate. They cut that to $22,500,000, which is entirely too small, and it will be a question of incurring deficiency or leaving out very necessary work all through the next year.

Senator HALE. Is there any letter explaining that?

Admiral TAYLOR. There is a letter explaining that and recommending $29,400,000.

I would like to say that every dollar you add to that $29,400,000 will be so much help. We ought to have the full amount in order to keep the ships in proper condition.

The CHAIRMAN. Does that include money for any new construction?

Admiral TAYLOR. No, sir; it is simply to keep in condition the hulls of existing ships, with this exception——

The CHAIRMAN. The heading of it is "Construction and repair." It does not include any construction?

Admiral TAYLOR. It authorizes the construction of odd craft, such as small boats.

I should explain that included in this item of clerical, drafting, etc., that is a matter of statute law which has existed for about 10 years.

Page 32, after line 9, add the following provision:

The statutory limit of $300,000 for repairs and changes to capital ships of the Navy as provided in the act making appropriations for the naval service for the fiscal year ending June 30, 1917, approved August 29, 1916, is hereby changed to $500,000.

There is also a letter from the Secretary on that. That statutory limit was originally $200,000, which was approximately 5 per cent of the cost of a new capital ship at that time.

The law provides that we may spend on any steel ship 20 per cent of her cost, except that we must not exceed this total limit. The result is that on a destroyer costing $1,500,000, in round figures, we may spend $300,000, or 20 per cent.

On a battleship costing $15,000,000 we are at present restricted to $300,000, which is only 2 per cent of the cost of the ship.

The original idea in putting in the $200,000 was to make it not more than 5 per cent of the cost. This $500,000 will only be 33⅓ per cent of the cost of a $15,000,000 ship.

We are being hampered more or less by that provision. I think Admiral Coontz has told me of some troubles that we have had——

Senator HALE. It makes all the ships the same?

Admiral TAYLOR. No, sir; it simply raises the limit for the larger ships. We are really held now to 2 per cent, which is inadequate. We do not spend that every year, but we would like to put the ships in good condition every two or three years.

The CHAIRMAN. Does the letter of the Secretary explain the reason for this increase to limitation?

Admiral TAYLOR. Yes, sir. I think the clerk has the letter, sir.

That is all, Mr. Chairman, except a matter in which Admiral Griffin is equally interested——

The CHAIRMAN. Before we go to that we will suspend a moment to hear Senator Brandegee.

STATEMENT OF SENATOR FRANK B. BRANDEGEE.

Senator BRANDEGEE. I will speak to the committee but for a few moments, Mr. Chairman. I did not realize that you were engaged in a hearing. I came because I talked with you yesterday and I thought I might get in a word.

The CHAIRMAN. It is very convenient to hear you now.

Senator BRANDEGEE. Last year, in May, I offered on the floor of the Senate an amendment appropriating $50,000 for the completion of a submarine base at New London yard. The local commander had estimated $130,000 as necessary for the installation of sidewalks and railroads to get from one end of the yard to the other, etc. It was not a formal estimate by the Secretary of the Navy. Senator Swanson and others on the floor very kindly allowed an amendment to the bill for $50,000. I did not desire to ask for the whole $130,000 because, it not being a formal estimate, I was not sure of the necessity of it myself. It went to conference and was agreed to.

At that time the admiral who was at the head of the proper bureau wrote a letter to Senator Page, chairman of the Naval Affairs Committee, approving of it, and it was retained in conference.

This year the Assistant Secretary of the Navy has sent to the committee a letter recommending $100,000 for the same station, part for the purchase of land and part for the completion of these improve-

ments. The letter is signed by Assistant Secretary Woodbury. I do not care to read it to the committee.

The amendment is:

Submarine base, New London, Connecticut: $60,000 toward completion of submarine base; purchase of additional land, $40,000.

The CHAIRMAN. That has been printed, Senator?

Senator BRANDEGEE. It is a printed amendment introduced by me and referred to this committee. The Secretary has written a letter indorsing the project, giving an estimate for it and showing what it is for.

It is one of the principal, if not the principal, submarine bases on the Atlantic coast. The commandant at the base made an estimate last year, and the Secretary has had it reestimated this year, and he indorses that $100,000 appropriation. There is here the complete estimate made by the commandant last year showing $130,000.

The CHAIRMAN. Do you know whether it is included in the naval estimates?

Senator BRANDEGEE. No; it is not, but the department has always advocated it. Assistant Secretary Roosevelt last year indorsed the appropriation of $50,000 and instructed Admiral Parks to write a letter in favor of it.

Senator SWANSON. How much land is there?

Senator BRANDEGEE. Three tracts of land.

I ask that the committee give this matter its careful consideration.

(The amendment referred to by Senator Brandegee and the letter of Assistant Secretary Woodbury with reference thereto are as follows:)

NAVY DEPARTMENT.

MY DEAR MR. CHAIRMAN: I desire to invite your attention to the importance of an appropriation in the current naval bill of $100,000 to continue most urgent items of development, and to purchase certain small parcels of land, at the submarine base, New London, Conn.

The funds are required to carry to completion the underground distributing system, to continue the building of very necessary roads and walks, to continue laying railroad tracks, and to continue the building of necessary minor structures for housing the shop and storehouse activities. Sewage-disposal works are also required at this station in order that the action of the United States Government at this station may not be out of harmony with the sanitary laws of the State of Connecticut. Certain small parcels of land, seven in number and privately owned, should be acquired by the Navy. They would simplify the naval boundaries, facilitate traffic between the mine base and the submarine base, and give the mine base direct access to the water front of the submarine base, which it now does not have. The mine-depot land should also be continued to Crystal Lake to afford additional security and better policing. In addition, miscellaneous minor items of improvement are necessary.

This appropriation would enable the work to be conducted more efficiently, and it is estimated that an actual saving in annual operating expense of about $10,000 will result when proper distributing lines can be installed. It is recommended that the appropriation be worded as follows:

"Submarine base, New London, Connecticut, toward completion of submarine base, $60,000; purchase of additional land, $40,000."

Sincerely yours,

WOODBURY,
Assistant Secretary of the Navy.

Hon. CARROLL S. PAGE,
Chairman Naval Affairs Committee, United States Senate.

[H. R. 15975, Sixty-sixth Congress, third session.]

AMENDMENTS Intended to be proposed by Mr. Brandegee to the bill (H. R. 15975) making appropriations for the naval service for the fiscal year ending June 30, 1922, and for other purposes, viz: At the proper place insert the following:

Submarine base, New London, Connecticut: Toward the completion of a submarine base at New London, Connecticut, $60,000.

For the purchase of additional land, $40,000.

The CHAIRMAN. We will hear from you further, Admiral Taylor.

STATEMENT OF REAR ADMIRAL D. W. TAYLOR—Continued.

Admiral TAYLOR. I will refer to page 45, "Increase of the Navy."

I just want to say one word, Mr. Chairman, about the situation. It ought to be in the record, I think. There was a good deal of discussion before the House committee as to the rates at which we would make progress, etc.

Referring to the items "Increase of the Navy, construction and machinery," and "Increase of the Navy, torpedo boats," they both cover the same field. The total amount which we will have available for the 19 months from the 1st of December—I am talking now of actual balances—this appropriation will be $146,000,000, which means an average expenditure of seven and two-thirds million dollars per month.

For the five preceding months, from the beginning of last July up to the 1st of December, the total expenditure was a little over $45,000,000, or $9,000,000 per month. So that the result of this will be a real slowing down from the $9,000,000 per month which we spent for the first five months this year to an average of seven and two-thirds millions per month.

The figure which is provided in the bill is only a little over one-half of what we would normally spend if the money were available.

The CHAIRMAN. Do you know how the House arrived at the conclusion that this would enable you to proceed at the same rate of construction as you did last year?

Admiral TAYLOR. Because last year we did not proceed at such a rate as we have been proceeding this year. We were spending last year largely in finishing destroyers and other things out of other appropriations, and we were just beginning to start to spend largely on this program. It is a real slowing down, and as I understand the situation we will have a good deal of difficulty in meeting contractors and dealing with them, and we hope to get the support of you gentlemen.

Senator HALE. You do not expect an increase in the amount of the nine millions?

Admiral TAYLOR. We are not expecting that, sir. That amount would have to be increased in connection with the airplane carriers if they are authorized. That is already provided for in the amendment which the clerk has.

The only other matter that we have further is on page 46, after line 5, where we ask to have inserted:

The limits of cost of vessels heretofore authorized and below enumerated are increased as follows:

Battleship No. 44, from $12,750,000 to $14,750,000.

Battleship No. 46, from $15,000,000 to $16,000,000.

These battleships are approaching completion, and we find that to complete them it will be necessary to increase the limit of cost. We are not asking at this time to have the limits raised on the later ships, because we are on a falling market, and we do not like to have the limit any bigger than is absolutely necessary. One shipyard has recently, on the 14th of February, reduced its wages 10 per cent and made other changes, which enables us to hope that there will be a real reduction in later vessels, but these to which I refer are so near completion that they will not get the benefit of the falling market.

I have nothing more, Mr. Chairman.

STATEMENT OF REAR ADMIRAL ROBERT S. GRIFFIN, UNITED STATES NAVY.

Admiral GRIFFIN. On page 32, line 21, I would like to have inserted, and the Secretary has written a letter to that effect, after the last word and before the semicolon, the words "including not to exceed $2,500 for the purchase of land necessary for radio shore stations.

This appropriation bill has always carried a provision of that kind. Last year the limitation was $20,000. It is very necessary to have a small amount of money in case we have to purchase land to establish a shore radio station. Just now we are establishing a great many stations. The expenditures are small, but it is necessary to have something, otherwise we would not be able to do it. Last year I think we spent only $1,100 for that purpose. It does not increase the appropriation.

The CHAIRMAN. Have you prepared an amendment?

Admiral GRIFFIN. Yes, sir; and the Secretary has written a letter with reference to it.

The CHAIRMAN. Where do you propose to insert it?

Admiral GRIFFIN. In line 21, on page 32, after the last word and before the semicolon.

On page 33, line 15, we would like to have an increase from $20,500,000 to $28,000,000. The Secretary has written a letter requesting that. The original estimate, based on 143,000 men was $33,670,000. When a reduction to 100,000 men was contemplated I made a new estimate of $30,625,000. The House bill carries only $20,500,000. We will not be able on that to keep the machinery of the fleet in repair and do the other work that we have to do. The ships will pile up in the yards for repairs which the yards will be unable to give them.

Furthermore, I may say in connection with that $28,000,000 that I had not contemplated that Congress was going to reenact the bonus for navy yard employees, which has been done, and which will add about——

The CHAIRMAN. Does the pay of those employees come under this item?

Admiral GRIFFIN. Yes, sir.

Senator SWANSON. No. Any bonus that goes to the Navy people is taken into consideration. The bonus is paid out of the appropriation carried in that bill.

Admiral GRIFFIN. In which bill, Senator, the legislative bill?

Senator SWANSON. Yes, sir. They make a lump sum there which pays the amount they fix for the bonus.

Admiral GRIFFIN. I thought it applied to the clerical employees.

Senator SWANSON. It applies to them too, as I understand it.

Admiral GRIFFIN. Then that will be all right.

Senator SWANSON. They have a lump sum that covers the appropriation.

The CHAIRMAN. Are you sure about that, Senator?

Senator SWANSON. I am sure of it, Senator. The Secretary has written a letter on that basis and it has been put into the record.

Admiral GRIFFIN. Between lines 15 and 16 I would like to have inserted a provision which was contained in the estimates but which Mr. Kelley would not consider because it was legislation, and as the Naval Committee of the House did not hold a hearing on this appropriation it does not appear in the legislative bill; that is, an appropriation for the reengining or renewal of the engines of certain submarines, *L–1* to *L–4*, *L–9* to *L–11*, and *M–1*, making eight submarines in all, $2,000,000 being required for the eight.

The reason for that is that those engines were designed 10 years ago when the knowledge of Diesel engine design was very limited. The engines are the same as those in the K-boats.

We recognized at the beginning of the war that those engines would not do, and we started to build new engines for them. We completed them during the war, but as the boats were engaged in service at the time they were not installed until after the armistice. They have now been installed and the boats have been in commission and are proving very satisfactory.

These engines are identical in design with the ones replaced in the K-boats and they should be replaced for the same reason, as the boats are now of no military value. They have been laid up on account of engine troubles.

The CHAIRMAN. Will they be of military value if these new engines are put into them?

Admiral GRIFFIN. Yes, sir.

The CHAIRMAN. What is their radius of action?

Admiral GRIFFIN. About 4,000 or 5,000 miles.

The CHAIRMAN. How about the submarines that we have already constructed?

Admiral GRIFFIN. Those S-boats, you are referring to?

The CHAIRMAN. Yes, sir.

Admiral GRIFFIN. There have been troubles with the engines also. It is a mechanical difficulty that can be corrected and the contractors are proceeding along that line now. It is something that the contractors will have to make good. We have refused to accept those boats with the engines as they now are, and the contractor is required to make good. He is proceeding with the work now.

The CHAIRMAN. How many of those are there?

Admiral GRIFFIN. All together there are 31 involved, I think.

The CHAIRMAN. They have not been accepted, then?

Admiral GRIFFIN. One has been accepted preliminarily, but not finally.

The CHAIRMAN. You think the difficulty can be remedied?

Admiral GRIFFIN. Oh, yes; it is susceptible of remedy.

The CHAIRMAN. What is the next item, Admiral?

Admiral GRIFFIN. The next item goes back to a provision that has appeared in the naval appropriation bill for the past three or four

years. It has been an appropriation for the investigation of fuel oil and other fuel, and for other purposes.

The CHAIRMAN. That should go in under "Fuel," should it not?

Admiral GRIFFIN. No; it belongs before "Contingent," on page 4—any place along there it should go in.

We have always had a provision for about $30,000 to carry on this work. It covers the employment in the field of the people who are looking out for the naval reserves in California and for certain expenses at the fuel-oil testing plant in Philadelphia.

The Secretary has written a letter on the subject which is before your committee. We consider it very necessary that that should be incorporated.

The CHAIRMAN. What amount is that?

Admiral GRIFFIN. $30,000.

The CHAIRMAN. You regard that as important?

Admiral GRIFFIN. It is very important now, because of the fuel situation and the price of oil. It is very necessary that we investigate questions involved in the burning of lower grade oils. It is difficult to get those lower grade oils which will meet our requirements of smokeless combustion, so that we have to experiment along that line to devise means for doing it.

That is all, sir.

STATEMENT OF J. A. LEJEUNE, MAJOR GENERAL COMMANDANT UNITED STATES MARINE CORPS.

Gen. LEJEUNE. Mr. Chairman, the question before the Marine Corps is the amount of money necessary to support them, and I would like to have Admiral Coontz say a few words about it and about the number of men that we should have in the Marine Corps.

The CHAIRMAN. We would be very glad to hear anything that Admiral Coontz wishes to state in regard to the matter.

Admiral COONTZ. I have not very much to say on the subject, Senator, except that I realize that they are going to be cut down as the Navy apparently is, and my suggestion would be to carry out the rule that the Marine Corps should have one-fifth the number that we have in the Navy. That has been the rule, I think, for some time. Whatever the Navy gets, the marines will have to try to get along with that percentage. We work very closely together on that and as to all the details of the various ships and stations, and so on, and practically all of our business is transacted along those lines.

The marines were allowed 27,500 men, while the Navy was allowed 143,000. So that whether we have 120,000 or 110,000 or 100,000, my suggestion would be to give them their regular percentage of that amount.

Gen. LEJEUNE. The appropriation bill as passed by the House, Mr. Chairman, purports to appropriate for 20,000 enlisted men of the Marine Corps and the full quota of officers. As a matter of fact, while the appropriation under the heading of the Paymaster's Department is sufficient for 20,000 men, the amounts under the different subheads of the Quartermaster's Department are sufficient for only approximately 15,000 men, and under every subhead except the one item, "Repair to barracks," the amount is insufficient for 20,000 men.

The Secretary of the Navy has written a letter to the chairman of the committee in which he points out the deficiencies under these different subheads and asks also that the proviso which has been contained in the bill for the last eight years, but which was struck out this year, making appropriation under the various subheads of the Quartermaster's Department one fund, be restored to the bill. It is extremely difficult to administer these small sums under the subheads.

The CHAIRMAN. What limitation of personnel, if any, is fixed by this bill?

Gen. LEJEUNE. Twenty thousand, sir. There is no limitation in the text, any more than there was a limitation in the text for the Navy, but on the back of page 37 it says:

> The authorized enlisted strength of the Marine Corps is fixed by law at 27,400 men, and the officer strength is limited to 4 per cent of the total authorized enlisted strength. The accompanying bill appropriates for a force of 20,000 enlisted men, the number appropriated for for the current year, and for the entire number of commissioned officers which the law authorizes.

That is a statement that was contained in the report of the Appropriations Committee of the House.

The CHAIRMAN. It does not change the authorized strength?

Gen. LEJEUNE. It does not change the authorized strength at all, sir. The authorized strength remains fixed by law, 27,400 men.

Senator HALE. You say that this does not appropriate a sufficient amount?

Gen. LEJEUNE. I say it purports to appropriate for 20,000 men, but as a matter of fact, under the Quartermaster's Department the appropriation is only sufficient for 15,000 men. Under the Paymaster's Department it is sufficient for 27,000 men.

Senator SWANSON. The situation in the House, as I understand it, was that they could not change existing law. The existing law provided for 27,500 men, and that is the reason for that.

Gen. LEJEUNE. Just as they did in the Navy. The strength of the Navy is 143,000, and they have appropriated only enough money for 100,000.

Senator SWANSON. They did not change the law?

Gen. LEJEUNE. They did not change the law at all. It is a question of money, entirely, in this bill.

Senator SWANSON. Let me ask you how many men the Marine Corps would have if the Navy is put at 120,000.

Gen. LEJEUNE. Twenty-four thousand men.

Senator SWANSON. And if it is put at 110,000?

Gen. LEJEUNE. Twenty-two thousand men.

Senator SWANSON. In making it 22,000 men and fixing up the corps there would be an odd number. That would not make any difference in the organization of the corps, would it?

Gen. LEJEUNE. I would like to make a statement in regard to that matter.

I would like to bring to the attention of the committee the fact that 20,000 enlisted men are inadequate to enable the Marine Corps to perform the duties assigned to it. In addition to what may be termed its ordinary duties, it has two missions of great importance to fulfill. First and foremost is the war mission with the fleet. The

fleet can not operate without bases. When the fleet has passed beyond its own shores and its own possessions, it will become necessary to seize advance or temporary bases.

The primary war mission of the Marine Cops is to seize, occupy, fortify, and defend such bases. The force to engage in this duty is termed an advance-base force. It should consist of infantry, machine guns, artillery (heavy and light), signal, engineers, portable searchlight and other technical organizations. This force must be ready to embark and to sail with the fleet immediately upon the outbreak of war or when war appears to be imminent. It can not be recruited, organized, and trained after the emergency arises. It must be trained to the minute, and it must be constantly prepared for prompt and vigorous action.

In peace this force is used for expeditionary duty in various parts of the world.

The Marine Corps has been used as a kind of international police force since the time of its organization by practically every administration that has been in power, particularly since the Spanish-American war. Expeditionary forces have been sent to various places. It is a kind of an international police and fire department which our Government has used from time to time. This advance-base force which I have spoken of as being under training is always in readiness, and unless we have it we have not anything to use.

A strength of 20,000 is insufficient to provide this force. The table of complements approved by the Navy Department distributes the Marine Corps approximately as follows:

Foreign and sea service	9,000
Aviation	1,000
Guard duty at navy yards, ammunition depots, radio, submarine, and air stations, etc., in United States	4,000
Recruits under training	3,000
Recruiting duty, permanent detachments at training stations, clerks at headquarters, staff offices, etc	2,000
Ineffectives, such as men en route to and from foreign stations, sick in hospitals, etc	500

That makes a total of 19,500. With 20,000 we have just 500 men for the advance, base or expeditionary forces, which is our real preparedness force and which is a force that we have to use in case of any emergency arising anywhere in time of peace. The strength of this force should be approximately 8,000 men.

From the above, it will be seen that a reduction to 20,000 men means practically the disbandment of the force which is intended to carry out the primary war mission of the corps. It means that the historic regiments, the Fifth and Sixth Marines, which served overseas will cease to exist. I can not urge too earnestly or too strongly the importance of maintaining the Marine Corps at sufficient strength to enable it to be in readiness to fulfill its mission should an emergency arise.

The CHAIRMAN. Can we not maintain the Fifth and Sixth Marines and make a proportionate reduction by skeletonizing the organization?

Gen. LEJEUNE. We would have to skeletonize the organization by any reduction below——

The CHAIRMAN. If you skeletonize the organization would it be necessary to disband the Fifth and Sixth?

Gen. LEJEUNE. We could not keep them at 20,000 men, because they are used for other purposes; 19,500 men are used for other purposes, and those forces have been reduced down to the bone.

When I was appointed commandant I took up right away the establishment of complements at shore stations in the United States, and with a view of reducing them I detailed an officer of experience who visited all the stations and who made a study of it. I then appointed a board, of which he was the senior member, and my instructions to the board were to cut them down as much as they could. They actually cut them down to 2,000 men. That is what we are working on now. Every day I get letters from some station urging an increase of their complement. I had one yesterday from Mare Island. It was a most urgent request for men to look out for the different activities at that point. Every one of these requests I have had to refuse because we have not the men to give them.

So that even if we do not increase any of these complements, which already represent a reduction of what we had up to the 30th of last June, we still use up 20,000 men. There is no room for any further curtailing.

Our advance base force has to learn how to handle heavy guns. They have got to get them on the transport within 24 hours after an emergency arises; sail with all their outfit, landing at some place where there are no docking facilities, handle these guns, lower them into boats, and lower them ashore, get them on the beach, transport them to a land position, mount them, establish a fire control, and be in readiness to use them on a few hours' notice, which requires lots of practice.

The CHAIRMAN. What caliber of guns?

Gen. LEJEUNE. We are handling 6-inch guns. We may go up to 7-inch guns if we can get them on board ship.

We have to have with those men infantry, of course, to hold the landing places, also machine-gun units and light artillery. We have to have companies trained in the use of light artillery and signal corps work, which is all communication work, connecting up all the different detachments at the base, and the engineer organizations which are required for building bridges and roads and various things that engineers do. Then there is the question of portable searchlights for the purpose of illuminating the beaches so as to be able to prevent landings at night. We tried a great many of those things out in 1914 and got a pretty good line on what we had to do. The war has shown, in fact, it has been known always, that a base is a necessity to the fleet, and that we must have a military force to defend it; and if you do not have us you have got to have somebody else.

Senator HALE. Can you not cut down the 19,500 proportionately?

Gen. LEJEUNE. I might say, Senator, that that represents a cut. I do not see how we can cut it any further.

Senator SWANSON. How do you divide them up?

Gen. LEJEUNE. Nine thousand at foreign stations, 1,000 in aviation, 4,000 at shore stations in the United States, 3,000 recruits under training—we might reduce them a little—2,000 men who do the Marine Corps overhead work, the permanent detachment at the training stations, and we have to have noncommissioned officers at power plants to run machinery at different stations. We have them at Quantico. Also we have to have men on recruiting duty. A large part of our clerical force at staff offices, depots, and so forth, are

furnished by enlisted men. We always have from five hundred to a thousand men who are ineffectives, sick in hospitals, or traveling back and forth, or in confinement subject to court-martial. A certain percentage of men are going back and forth at sea to the Far East or to Haiti or to Santo Domingo or Cuba.

Senator SWANSON. How many have you on various duties in the United States?

Gen. LEJEUNE. Four thousand men.

Senator SWANSON. Where else have you men in foreign service?

Gen. LEJEUNE. Some in Cuba. We have about 500 men in Cuba. In Peking we have 350 men. In Hawaii we have about 400, and in Guam we have 500.

Senator HALE. We are obliged to cut down the personnel of the Army and the Navy.

Gen. LEJEUNE. We would like to have the whole force, but I realize the necessity of economy just as much as you gentlemen do, and we will get along with what you have to give us. I do hope that you will give us over that amount.

Senator SWANSON. You want us to keep up the one-fifth proportion?

Gen. LEJEUNE. We will do the best we can with whatever you give us.

Senator HALE. That will be 22,000 if the naval strength is 110,000 men, and 24,000 if the naval strength is 120,000 men?

Gen. LEJEUNE. We will get along with it and be able to keep our nucleus for training purposes.

The CHAIRMAN. Two thousand would make quite a difference?

Gen. LEJEUNE. The difference between 500 and 2,500 is tremendous.

Senator HALE. Can you show us, General, where these items are lacking in making appropriations for 20,000 men?

Gen. LEJEUNE. Yes, sir; I have the figures here.

The CHAIRMAN. Can you file a paper for the record showing what changes would be needed in the different items for the different estimated force?

Gen. LEJEUNE. Yes, sir; I have the whole thing right here, sir. Here is the paymaster's estimate. He did not come down because there was nothing to change. There is another one that goes with that.

The CHAIRMAN. Give them to the reporter and include them in the record.

(The papers referred to are as follows:)

Estimates, maintenance, Quartermaster's Department, Marine Corps, 1922.

Subheads.	20,000 men.	21,000 men.	22,000 men.	22,500 men.
Provisions [1]	$4,796,402	$5,015,402	$5,234,402	$5,343,902
Clothing [2]	1,856,690	2,000,000	2,000,000	2,000,000
Fuel	1,000,000	1,006,000	1,012,000	1,015,000
Military stores [2]	757,400	757,400	825,000	825,000
Transportation and recruiting	946,000	1,006,500	1,066,000	1,096,000
Repairs of barracks	450,000	450,000	450,000	450,000
Forage	120,000	120,000	120,000	120,000
Contingent	3,185,200	3,385,000	3,585,000	3,685,000
Total	13,111,692	13,740,302	14,292,402	14,534,902

[1] 60-cent ration.

[2] Does not represent cost of clothing a marine, as stock on hand is taken into consideration.

Estimates, maintenance, Quartermaster's Department, Marine Corps, 1922—Con.

Subheads.	23,000 men.	24,000 men.	25,000 men.	27,400 men.
Provisions [1]	$5,453,402	$5,672,402	$6,011,852	$6,537,452
Clothing [2]	2,000,000	2,250,000	2,250,000	2,500,000
Fuel	1,018,000	1,024,000	1,030,000	1,042,000
Military stores [2]	825,000	900,000	900,000	1,000,000
Transportation and recruiting	1,126,500	1,186,000	1,246,500	1,367,500
Repairs of barracks	450,000	475,000	475,000	500,000
Forage	120,000	120,000	120,000	120,000
Contingent	3,785,000	3,985,000	4,185,000	4,585,000
Total	14,777,902	15,612,402	16,218,352	17,651,952

[1] 60-cent ration.
[2] Does not represent cost of clothing a marine, as stock on hand is taken into consideration.

FEBRUARY 7, 1921.

MEMORANDUM FOR THE MAJOR GENERAL COMMANDANT.

Subject: Estimates, pay, Marine Corps, 1922.

1. To provide for increases as indicated below, H. R. 15975, should be amended as follows:

For 21,000 enlisted men, change $11,550,300.76, line 25, page 38, to $12,075,000; and $17,533,891.90, line 3, page 41, to $18,058,591.14.

For 22,000 enlisted men, change $11,550,300.76, line 25, page 38, to $12,595,000; and $17,533,891.90, line 3, page 41, to $18,578,591.14.

For 23,000 enlisted men, change $11,550,300.76, line 25 page 38, to $13,110,000 and $17,533,891.90, line 3, page 41, to $19,093,591.14.

For 24,000 enlisted men, change $11,550,300.76, line 25, page 38, to $13,620,000; and $17,533,891.90, line 3, page 41, to $19,603,591.14.

For 25,000 enlisted men, change $11,550,300.76, line 25, page 38, to $14,105,000; and $17,533,891.90, line 3, page 41, to $20,088,591.14.

For 27,400 enlisted men, change $11,550,300.76, line 25, page 38, to $15,408,680.50; and $17,533,891.90, line 3, page 41, to $21,392,271.64.

FEBRUARY 8, 1921.

MEMORANDUM FOR THE MAJOR GENERAL COMMANDANT.

Subject: Estimates, pay, Marine Corps, 1922.

1. To provide for an enlisted strength of 22,500 men, H. R. 15975 should be amended as follows: Change $11,550,300.76, line 25, page 38, to $12,852,500, and $17,533,891.90, line 3, page 41, to $18,836,091.14.

FEBRUARY 16, 1921.

MY DEAR SENATOR: I deem it my duty to submit, for your information, a statement concerning the effect on the Marine Corps of the provisions relating to the Marine Corps which are contained in the naval appropriation bill as passed by the House of Representatives on February 14, 1921.

The amount allotted to the Marine Corps for the Paymaster's Department, in the bill as passed by the House, $17,533,891.90, is sufficient for the needs of that department for 20,000 men.

The amounts allotted under the various subheads to the Quartermaster's Department, with the exception of the item "Repair to barracks," are not enough to maintain the Marine Corps at an enlisted strength of 20,000 men. If the lump-sum system of making the appropriation were continued, it would, with most rigid economy, support approximately 15,000 enlisted men. However, your attention is invited to the fact that the provision which has heretofore appeared in the annual appropriation bills under the heading "Maintenance, Quartermaster's Department, Marine Corps," constituting the money appropriated for that department as one fund, has been eliminated from the bill as passed by the House. Unless this clause be restored, the difficulties of administering the Quartermaster's Department will be greatly increased and a deficiency will inevitably be caused in some of the subheads, as it is impossible, on account of the various duties of the Marine Corps, and on account of the fact that it is so widely scattered in all parts of the world, to accurately estimate in advance the exact amount necessary under each subhead.

Heretofore when the entire appropriation constituted one fund, it was possible to prevent the creation of deficiencies in the various subheads, provided the total amount appropriated was sufficient to meet the needs of the corps, as surplus funds under some of the subheads could be utilized to provide for deficiencies under others. It is strongly urged that this provision be restored to the bill. If this be done it will not only have the tendency to prevent deficiencies but will greatly simplify accounting and the disbursement of public funds, and will be in the interest of an economical administration of the Quartermaster's Department.

Under the subhead "Provisions," the amount contained in the bill as passed by the House is $3,958,950. In that bill the cost of the ration for the ensuing fiscal year is fixed at 50 cents per diem per man. At that rate the item for provisions should be increased to $4,148,527. At present the cost of the ration is approximately 68 cents per diem.

Clothing: The amount contained in the bill, $1,000,000, is not sufficient to clothe 20,000 men. Taking into consideration the stock of clothing now on hand, this item should be $1,856,690. While there is a considerable stock of clothing on hand, the intermediate sizes, which are the ones used by a large majority of enlisted men, have been exhausted, making it necessary to manufacture these sizes.

Fuel: The amount contained in the appropriation bill is $590,000. This item should be $1,000,000. Unless increased a deficiency will be certain in this item.

Military stores: The amount contained in the appropriation bill is $500,000. This should be $757,400. In this connection your attention is invited to the fact that there has been included in the bill under this subhead an allotment of $125,000 for vocational schools. This item was approved by the subcommittee of the House in the hearings, and if authorized will reduce the funds available for military stores proper to $375,000 unless the appropriation be increased as herein requested. This amount manifestly will not meet the needs of the corps.

Transportation and recruiting: The amount contained in the bill is $750,000. It should be $946,000.

Repair of barracks: The amount contained in the bill under the subhead "Repair of barracks," $450,000, is equal to the amount estimated to be necessary.

Forage: The amount contained in the bill is $100,000. It should be $120,000. The estimates for this item were based not on men but on animals actually now in use, and any reduction will necessitate either disposing of animals in use by expeditionary companies in the field or in the creation of a deficiency.

Contingent: The amount contained in the bill is $2,000,000. It should be $3,185,200 This item is an extremely important one, as it provides for a vast number of absolute necessities, chiefly the ordinary comforts of life for enlisted men. Under the law a deficiency under this subhead can not be created, and unless a sufficient amount be appropriated it will be impracticable to keep the corps at a strength of 20,000 enlisted men.

The original estimates submitted by the Quartermaster for his department, on a basis of 20,000 men, have been gone over carefully and every not absolutely necessary expense eliminated, causing a reduction of nearly $4,000,000 to $12,463,817. This is an irreducible minimum, and any decrease in this amount can only result in either creating a deficiency or in reducing the strength of the corps to below 20,000 men.

Your attention is invited to the following provisions, contained in lines 16 to 22 of the appropriation bill as passed by the House:

"That no part of any appropriation contained in this act shall be used for the purchase of passenger-carrying automobiles: *Provided further*, That expenditures from appropriations contained in this act for the maintenance, operation, and repair of motor-propelled passenger-carrying vehicles, including the compensation of operators, shall not exceed $150,000."

It is recommended that this proviso be amended by adding thereto the following:

"This shall not apply to the motor-propelled passenger-carrying vehicles operating with Marine Corps expeditionary forces in the field outside of the continental limits of the United States."

Under the wording as now contained in the bill as passed by the House it is applicable to all motor transportation of the Marine Corps, and unless such application is removed it will greatly handicap the operations of the corps in Cuba, Haiti, Santo Domingo, and such other places in the field where it may be called on to serve.

Very sincerely,

JOSEPHUS DANIELS,
Secretary of the Navy.

Hon. CARROLL S. PAGE,
Chairman Committee on Naval Affairs,
United States Senate.

Gen. LEJEUNE. Before I stop, Mr. Chairman, there are one or two other little things that I would like to speak of. In this legislative act, H. R. 15994, on page 4, lines 6 and 7, it prohibits the expenditure of any money for aviation on land not owned by the Government. That is the intent of it. Our aviation activity is very largely in foreign countries. Whenever we have an expedition we have to take our aviation unit along with us and they have to squat somewhere in foreign countries. We do not own land and we have to spend some money in order that the aviation may function. Our station down at Quantico is on rented ground and we would have to close that up.

The CHAIRMAN. I suppose it is that very thing, the fact that you built a great camp down there on rented ground, that caused hte House to put in that provision.

Gen. LEJEUNE. I do not know what caused the House to put it in.

The CHAIRMAN. They probably wanted to avoid a repetition of it.

Gen. LEJEUNE. I think it is a bad principle to spend money on rented ground, but this place is down there and they have spent several hundred thousand dollars on it.

Senator SWANSON. You own all of it except——

Gen. LEJEUNE. Except that little plot of land where the aviation is. We own Quantico itself.

The CHAIRMAN. I understood you to say it was all rented?

Gen. LEJEUNE. Oh, no; the post is on Government land.

Senator SWANSON. Was there a provision in last year's bill, or the year before, for operation in foreign countries of the Marine Corps in connection with aviation?

Gen. LEJEUNE. Not that I know of.

Senator SWANSON. I know it was discussed. This same thing was in the bill last year. We cut it out last year. After it came over from the House we cut it out on account of your operating in foreign countries.

Gen. LEJEUNE. I was not here at the hearings last year. Down in Haiti and Santo Domingo now we have two units and they are very useful.

Senator SWANSON. You would not want to buy land there?

Gen. LEJEUNE. No, sir. We spent some money in training the men and putting up temporary establishments.

The CHAIRMAN. You do not put up any permanent establishments there?

Gen. LEJEUNE. Absolutely nothing of a permanent nature.

Senator SWANSON. The bill in the House last year would not even allow you to rent some land for tents down in Haiti?

Gen. LEJEUNE. That is what this will result in, too, if it goes through.

There is another thing, Mr. Chairman. The Marine Corps warrant officers were authorized in 1916. It is provided that they have the same pay and allowances as warrant officers of the Navy, but there is no provision which permits of their promotion to chief warrant rank as is done in connection with the Navy. So this year the Secretary of the Navy wrote a letter to this committee and asked for a bill incorporating that provision. The bill was introduced by Senator Page, at his request, and it simply does justice to these men. It will cause no increase in the appropriation whatever at this session. It simply puts them on the same footing.

Senator HALE. Where will that go in?

Gen. LEJEUNE. Just before the Quartermaster's Department is reached, page 38.

(Gen. Lejeune submitted a letter in this connection, which is as follows:)

NAVY DEPARTMENT,
Washington, December 9, 1920.

MY DEAR Mr. PAGE: I have the honor to recommend that you introduce a bill reading as follows:

"That warrant officers of the Marine Corps shall be commissioned chief warrant officers under the same conditions, and shall have the same rank, pay, allowances, and other benefits, as are now or may hereafter be prescribed by law for commissioned warrant officers of the Navy. That pay clerks are graded as warrant officers with the same rank, pay, allowances, and other benefits as are above provided for other warrant officers of the Marine Corps, and provided that nothing herein contained shall be construed to reduce the pay, allowances, emoluments, or any other benefits that any person now in the service would have received but for the passage of this act."

The purpose of this legislation is to place warrant officers of the Marine Corps in the same status as regards rank, pay, allowances, and other benefits, as warrant officers of the Navy enjoy. Similar proposed legislation failed of passage last year; it is recommended again in order that justice may be done to these officers.

JOSEPHUS DANIELS.

Senator CARROLL S. PAGE,
Chairman Naval Affairs Committee, Washington, D. C.

Gen. LEJEUNE. There is another item in the bill that I want to say a word about. It is not ordinarily my affair, but it affects the Marine Corps very vitally.

On page 46 of the appropriation bill there occurs this clause:

Provided, That no part of this appropriation can be expended except on vessels now being constructed or heretofore contracted for.

That will eliminate the construction of transport *No. 2*, which was commissioned in the 1916 building program. The *Henderson* was the first one built. We have men down in Haiti and Santo Domingo and Cuba and are likely to have them in other places. We have always had them, and the only transports available for the use both of the Navy and the Marine Corps are the *Henderson* and the *Hancock*. The *Hancock* is an old ship which has been reported as being unseaworthy. She is a single-screw ship, without any double bottoms. Her machinery is practically worn out and she is absolutely unsafe to carry men around stormy waters——

The CHAIRMAN. Why can you not get a ship from the Shipping Board that will serve the purpose?

Gen. JEJEUNE. Admiral Coontz will tell you that the Secretary of the Navy and he have made every effort to get ships, not only from the Shipping Board but from the War Department, and have been turned down repeatedly. Each one says they have no ships they can let us have without paying for them.

The CHAIRMAN. As a matter of fact, what I thought you were going to say when I asked you that was that the Shipping Board ships are not adapted for transport service. They are not, are they?

Gen. LEJEUNE. They would have to be converted at an expenditure of a considerable sum. But we have not been able to get them.

Senator SWANSON. The transportation that we have to Guam and Porto Rico and to the Philippine Islands and China justify us in having first-class transport ships?

Gen. LEJEUNE. Absolutely. The *Hancock* has got to go out of service in the next few months, and we will have only one transport. Gen. McCauley will give you the details.

Senator SWANSON. Have you taken it up with the Secretary of the Navy at all?

Gen. LEJEUNE. Yes, sir; repeatedly at conferences. Admiral Coontz has brought it up and we have all chimed in.

Admiral COONTZ. Senator, it is just a case of putting it off. It should be done. We run some old tubs out to various places. We really need a first-class ship.

Senator HALE. If you could get one of these fine new ships that the Shipping Board has you would not object to it?

Admiral COONTZ. We would not object if we can get it fixed up.

Senator HALE. It could be fixed up so that it would be all right?

Admiral COONTZ. Yes.

The CHAIRMAN. Did you cover in the papers you have put in all the different changes?

Gen. MCCAULEY. The papers filed with the stenographer, Mr. Chairman, cover the amounts that will be required under the appropriation and maintenance of the Quartermaster's Department for 20,000 men, and up to 27,400 men.

The CHAIRMAN. Have you an extra copy of that paper?

Gen. MCCAULEY. Yes, sir.

The CHAIRMAN. It has already been filed, has it not?

Gen. MCCAULEY. Yes, sir. In the appropriations for this year Congress gives $11,691,510, to which was added a deficiency appropriation of $3,000,000, making a total of $14,691,510.

This bill only carries a total appropriation for the Quartermaster's Department, for the same number of men, presumably, of $9,348,950. There is a difference there of nearly $5,000,000. So it is utterly impossible for us to operate owith 20,000 men under this figure in bill. Of course the amount we require depends entirely upon the number of men in the corps. It is almost a mathematical calculation.

We have reduced these figures even since the hearings before the House committee, so that we have cut them down, I think, to bedrock. I do not see how we can go any lower.

The CHAIRMAN. The amounts are not sufficient for 20,000 men?

Gen. MCCAULEY. Not nearly by $3,762,742. The Secretary has written a letter about that asking that the amounts be restored to those figures for 20,000. He would not go beyond that.

There are just two things, Mr. Chairman, if you will permit me to speak further, in the appropriation for contingent on page 43, line 15.

Recently the system of washing the men's clothing has been authorized by law because the clothing belonged to the Government. It was issued to the men during the war and was retained as Government property. Now we have restored the old clothing allowance, and we think the washing of clothing ought not to be continued any further. In making the statement the other day to the Appropriations Committee they readily agreed to it and took out of the amount under contingent, $500,000, which was stated to be necessary for that item, but they did not take out the wording of the appropriation. They did not change it, although we urged it.

The CHAIRMAN. What words need to be taken out?

Gen. McCauley. I am suggesting that you omit "washing and cleaning bed linen, towels, and articles of regulation clothing in use by enlisted men," and substitute therefor "washing bed linen, towels, or other articles of Government property."

If that is left in and no appropriation is made for it, the men will probably have a claim for having their clothing washed, and there will not be any money to pay it with. I think it would be better to restore it to the way it was originally before that provision was enacted.

Another item at the end of the appropriation for the Quartermaster's Department. I simply want to urge what Gen. Lejeune has already recommended; that is, the restoration of the provision which has been in the law for the last eight years, making the appropriation for the Quartermaster's Department one fund. I will just file a little statement here.

The Chairman. Where would that come in?

Gen. McCauley. On page 45, line 11, just before the total.

Senator Swanson. The exact language of the bill last year?

Gen. McCauley. The exact language of the bill last year. It has been very strongly urged. The Secretary has urged it, the Treasury Department has urged it, and it makes for economy and simplification of administration.

(The statement referred to is as follows:)

The removal of the provision at the end of the appropriation "Maintenance, Quartermaster's Department, Marine Corps," constituting the money appropriated as "one fund," will result in deficiencies every year under the various subheads of the appropriation of the Quartermaster's Department, Marine Corps, which have been eliminated since this provision of law was enacted (act Mar. 4, 1913). Owing to the widely scattered duties of the Marine Corps in all parts of the world, it is impossible accurately to estimate each subhead, and in many cases not enough money is appropriated under one item when there is ample under another, brought about by the exigencies of the service, and by transfers deficiencies can be avoided. The United States Treasury advocated this system as a simplification of bookkeeping, as many times in the past a few dollars had to be asked for under a deficiency in one item, where there were many thousands of balance in another. It is strongly urged that this provision be restored to the bill and the quartermaster allowed to disburse his funds in the same manner as the paymaster. It is a business proposition.

The Chairman. The committee will be at recess until 10.30 o'clock Monday morning.

(Whereupon, at 5 o'clock p. m., the committee took a recess until Monday, February 21, 1921, at 10.30 o'clock a. m.)

NAVAL APPROPRIATION BILL, 1922.

MONDAY, FEBRUARY 21, 1921.

UNITED STATES SENATE,
COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met, pursuant to adjournment, at 10.30 o'clock a. m., in the committee room, Capitol, Senator Miles Poindexter presiding.

Present: Senators Poindexter (acting chairman), Hale, Ball, Keyes, and Swanson; also Senators Smith of South Carolina, and Dial.

The ACTING CHAIRMAN. The committee will come to order. The committee understands that you desire to be heard, Senator Smith.

DRY DOCK AT CHARLESTON, S. C.

STATEMENT OF HON. ELLISON D. SMITH, A SENATOR FROM THE STATE OF SOUTH CAROLINA.

Senator SMITH of South Carolina. Yes, sir.

Mr. Chairman, I had hoped that after mature deliberation on the part of the committee it would hardly deem it necessary to have any further hearings in reference to this matter, but allow the authorization to stand.

The situation as it now is, that the authorization for a dry dock of the larger type at Charleston, S. C., is still on the statute books. The present Secretary of the Navy, perhaps with the Naval Board that is now existant, were responsible for the action of the committee in reporting favorably the authorization which resulted in the law being passed making the authorization. With the outgoing of the present Secretary of the Navy there will come one who, of course, will not utilize the authorization unless in his judgment he thinks that it is necessary. It is my purpose, therefore, to simply call your attention to what I think makes it imperatively necessary that the authorization remain, and that the incoming Secretary will at the proper time see that the dry dock of the larger dimension at Charleston is constructed.

Therefore, I think the committee would not jeopardize anything if it were to allow the authorization to stand, for the reason as I intimated that it leaves it to the Secretary of the Navy to take such action as he sees fit during the life of that authorization.

The ACTING CHAIRMAN. What is the life of the authorization?

Senator SMITH of South Carolina. It is indeterminate. He himself can give the contract or not, and therefore no work would be done.

Senator BALL. I would like to ask you one question: The contract was not given simply because they could not give the contract within the limits set by the bill; that is correct, is it not?

Senator SMITH of South Carolina. That perhaps is in a way correct, but the Secretary of the Navy informed me in a document here that the prime reason why he did not give the contract was because of the high cost of material and the uncertainty of obtaining it and the labor, the embarrassment, and unrest and shifting was such that every offer that he had was practically cost plus, and he did not propose to let out any contracts any more that involved that, intimating that the reason he had let some practically on that basis was because of the exigencies of the war, which were such that he could not help it.

Senator BALL. I think you had better say cost plus percentage or cost plus a fixed amount. It is cost plus all right. They made that proposition under a percentage.

Senator SMITH of South Carolina. Which amounted to the same thing.

Senator BALL. And the other was a fixed sum.

Senator SMITH of South Carolina. Yes; I was not advised as to whether he got an offer as to a fixed sum. His letter is here and I will have it put in the record with the permission of the committee.

Senator BALL. Do not understand me to say a fixed sum for the cost of construction. A fixed sum for the contractor's part.

Senator SMITH of South Carolina. Oh, yes; perhaps.

Senator BALL. That would make no bid at all. There was no contractor who would make any proposition to build a dry dock: the only contractor was a New York contractor who would fix any amount and he said it could not be constructed under $7,000,000. That is the only fixed amount that was given.

Senator SMITH of South Carolina. I was not aware that that had occurred.

Senator DIAL. The only thing was with respect to the foundation of it; he did not want to build it until that was determined.

Senator BALL. $4,000,000 would answer your question; $4,000,000 was the limit as placed in the bill.

Senator SMITH of South Carolina. In reply to the suggestion, I will say that they were not assured but that a repetition of the disaster that occurred at Hog Island might be repeated there, until they had ascertained the nature of the foundation upon which they would build the dry dock. The pump-well section was put in and my latest information is to the effect that the foundation has been ascertained, and is satisfactory.

Now, Mr. Chairman and gentlemen, as I say, bearing in mind, as I know the committee will, that the authorization is not an appropriation, but simply leaves it at the discretion of the Secretary of the Navy as to whether or not he will build, or give out a contract, I want to submit some facts with respect to it.

I will first take up the necessity from the standpoint of defense, from the naval standpoint.

Taking Cape Hatteras as the dividing line between the South Atlantic proper and the Gulf and the North Atlantic, there is in the two sections or two bights, in the terminology of the Navy people—from Cape Hatteras to Portsmouth, N. H., a distance of about 700

miles sea front or coast line. In that distance in the North Atlantic there are 18 dry docks, and the total expenditures by the Navy will be for its naval forces.

Senator HALE. These are all naval dry docks that you are speaking of, are they?

Senator SMITH of South Carolina. They are dry docks. I presume they were gotten from the Navy; yes, sir.

The ACTING CHAIRMAN. There are not that many naval dry docks. It must include also some commercial dry docks.

Senator SMITH of South Carolina. No; I got this from the Navy Department as to what they were interested in and had spent money for. There are 18. I shall enumerate them: At Portsmouth there is one, at Boston two, at New York four, at Philadelphia three, and at Norfolk six.

Senator HALE. That is all naval property.

Senator SMITH of South Carolina. Yes; that is all naval property, making in all 18, at a cost of $632,369,264.12. From Hatteras to Galveston, roughly speaking, a distance of 2,000 miles, we have one dry dock of the lesser type at Charleston, and one small floating dock at New Orleans.

Senator BALL. Now you call that a small dry dock. You ought to state the size of it.

Senator SMITH of South Carolina. It is of a size that would take in the *Utah*.

Senator BALL. It is 566 feet 7½ inches in length.

The CHAIRMAN. That would take in one of the destroyers.

Senator HALE. Did you say 560 feet?

Senator BALL. Five hundred and sixty-six feet seven and one-half inches.

Senator HALE. That is a very fair size dry dock.

The CHAIRMAN. Yes; it is larger than is necessary for the destroyers.

Senator BALL. It would take in the *Utah*.

Senator SMITH of South Carolina. Let me give you the exact size of the Charleston dry dock——

Senator BALL. It is a concrete granite dry dock and very well built.

The CHAIRMAN. How long has that been completed?

Senator SMITH of South Carolina. I do not recall just when that was completed. I will look through my files and insert the exact date in the record.

Senator BALL. I think I can give you all that information sooner than you can.

Senator SMITH of South Carolina. I want to get the exact size of the Charleston dry dock. I have it here.

The board of inspection and survey of shore stations in its report dated August 5, 1913, said:

The board of inspection and survey of shore stations in its report dated August 5, 1913, discussing facilities at the Charleston (S. C.) Navy Yard, says:

"The docking facilities consist of one granite-lined masonry dry dock, with a length of 575 feet and width at the coping of 134 feet, with 34 feet of water over the sill at mean high water. This dock was completed in 1908 and can dock a ship of the *Utah* class. The outer sill of the dock is 600 feet back from the normal shore line, and the indentation thus formed silts up rapidly, seriously interfering in the past with the use of this dock. Since the construction of the new electrically operated hydraulic

dredge, however, the entrance of the channel of the dock has been maintained at its dredged depth with but little difference and at small expense.

"Although the board believes that increased docking facilities are an urgent naval need and that a second dock is required at Charleston to properly develop the station, it is of the opinion that, until the additional dry docks of largest size are provided at certain other important stations on the Atlantic, Gulf, and Pacific coasts, the construction of an additional dry dock at Charleston should be postponed. Space should be reserved for a second dock, and a suitable location is available south of Dry Dock No. 1. The development of the water front recommended in this report will not interfere with its construction at this point.

"The question of precedence of location of additional dry docks at home and at outlying stations is one of policy of such importance that it demands the immediate consideration of the department.

"The need of the station for increased docking facilities in the immediate future can be best met by providing a marine railway of sufficient capacity and proper construction for safely hauling out a modern destroyer of the largest tonnage contemplated."

This board was composed of Rear Admiral John R. Edwards, Capt. George R. Evans, Commander William G. Du Bose, and Civil Engineer Archibald L. Parsons.

In a comprehensive review upon the strategical importance of our naval stations in a report to the Senate Naval Affairs Committee, Rear Admiral John R. Edwards said:

"No American fleet could operate for a protracted period in the Caribbean without establishing on the Atlantic coast a naval base south of Cape Hatteras, and Charleston is the only port on that stretch of coast which can be adequately developed into such a base."

Among the expenditures which he stressed was the importance of a modern dry dock at Philadelphia and at Charleston, and Congress made provision for both, and the one at Philadelphia is half finished. The Helm Board, which made a survey of all the present and possible naval bases on the Atlantic coast, on page 25 of their report, gave reasons why the suggestion of an extension and lengthening of the dry dock at Charleston ought not to be carried out, but that a new dry dock ought to be built if Charleston should be determined as the best base south of Hatteras. They argued that there should be a dry dock south of Hatteras big enough to take a battle cruiser, and it ought to be possible for a damaged battleship to get quickly into a dry dock south of that point if either stem or stern were damaged, drawing 30 or 40 feet of water. The dry dock to be built at Charleston would accommodate a battle cruiser or battleship drawing 40 feet of water.

In the Helm Board report, page 25, will be found a statement with reference to the necessity of periodic dredging at New York and Charleston. An officer, speaking of silting conditions at the New York and Charleston Navy Yards, made this statement: "The entire water area now subject to periodic dredging at the navy yard Charleston, S. C., is 50,000 square yards, and at the navy yard, Brooklyn, N. Y., is 286,000 square yards." Since that time Wallabout Basin has been enlarged by removal of a part of Cobb Dock, so if these figures were correct at that time they are even more true now.

Dredging or deepening of channels has been necessary at nearly all our navy yards. I think the only exception is at Portsmouth. At Boston, in 1897, we had one berth at the western end of the yard in which a ship drawing 28 feet could be berthed and none of the rest of the front would admit of a ship drawing over 24 feet, and at that time the main ship channel from the sea to that part of the harbor is believed to have been 30 feet, which has since been dredged to a depth of 35 feet. Additional dredging has been done on the Boston water front to berth battleships at piers on more than one-half of that front. I do not know how much the dredging has cost, but it has been a very large sum to make it available for ships of large draft. We can dock ships 30 feet draft on the western two-thirds of the yard.

The Sixty-fifth Congress appropriated $4,500,000 to buy, complete, and put in commission the Commonwealth Dock, which had been begun by the Commonwealth of Massachusetts. The contract required sufficient dredging to make it possible to carry large battleships into this new dock which the Government has purchased.

In New York we now have four dry docks of which one can take the deep-draft ships of the battleship class, but is not long enough to take the battle cruisers. This dock was reported completed on July 23, 1912, and first ship was docked on July 26, 1912. We had to do a considerable amount of dredging during the present year, costing, I think, about $75,000.

At Philadelphia we are now working on a dry dock big enough to take battle cruisers with a limit of cost on it of $4,700,000. During the war, in order to hasten construc-

tion, a supplemental agreement was entered into which will make this dry dock cost considerably more. In order to use this dry dock and enable the navy yard to take battle cruisers and battleships, it will be necessary to dredge the Delaware River from its mouth to the navy yard and provide continual maintenance for dredging. The cost of maintaining a 35-foot channel in the Delaware River was estimated in 1910 by the War Department at $300,000 annually. Actual expenditures under "Maintenance" to secure a 35-foot channel have been in 1914, $531,496.49; in 1915, $302,181.99; in 1916, $441,497.55; in 1917, $319,567.68; in 1918, $568,824.36. The present project is about 50 per cent complete. The probabilities are it will have to be deepened to 40 feet instead of 35, which will require many millions more. This will be necessary in order to take in the biggest naval and merchant ships, because in the future commerce will demand deep channels and big dry docks.

Norfolk has, in addition to the two flooded last month which, were built by the Shipping Board on naval property, four dry docks. During the war when the Shipping Board had need for dry docks, after conference between the Shipping Board officials and the Secretary of the Navy, it was decided to utilize the shops of the Navy in order to economize on the plant. The limit of cost to build the dry dock at Norfolk was $4,356,000, and it will cost something more than that. In April of this year it was necessary to dock the *Leviathan*, and at that time Dry Dock No. 4 had been completed sufficiently to make it available for this purpose, but it was found that available channel between Hampton Roads and the entrance to the dry dock would not permit of the handling of this ship, and other arrangements had to be made. The War Department has undertaken the necessary dredging and will soon have that dock ready for the largest naval and commercial vessels. Periodic dredging is necessary to keep the channel open. We started with a 25-foot channel, and the water front at the Norfolk Navy Yard, which was increased, was increased from time to time until now a depth of 40 feet has been established.

There is no dry dock big enough to take a dreadnaught between Hampton Roads and Panama, a distance of 1,768 nautical miles, excepting the one at Charleston, which will take one of the Utah type.

The CHAIRMAN. Some one said here the other day that no ship had ever been taken into it; is that the case?

Senator SMITH of South Carolina. Oh, I think they are constantly being taken there. I have seen ships in the dock.

Now, I would like to continue my statement, Mr. Chairman. We all know that the most dangerous cape on the whole Atlantic seaboard is Cape Hatteras. No vessel of the larger type—and we are building the larger type both as to battleships and merchant ships—could find any place for repair or docking south of Hatteras. The bight from Hatteras to Galveston is the line fronting and protecting the South Atlantic, the Gulf of Mexico, and the Caribbean Sea, and is, as you will see by a map that I have here, almost a direct route and the shortest one, for any docking facility, to the Panama Canal. In case of any trouble we might have either by disabling a vessel or vessels, or anything happening during a time of war, no vessel of a size larger than those indicated could get any dockage south of Hatteras, from Galveston to Hatteras, a distance of 2,000 miles.

The CHAIRMAN. That 2,000 miles is coast line, is it?

Senator SMITH of South Carolina. Yes, sir; as against 700 miles from Hatteras to Portsmouth, N. H.

Now, every admiral—and I asked them to get just what they had to say, so it will go into this record—has expressed himself on it, and I want to call the attention of the committee to some remarks of Admiral Helm. He says:

During the last 12 years, since the establishment of the navy yard at Charleston was first determined, the enterprise has come in for a vast deal of misrepresentation; and Senator Tillman, who has been its steadfast champion, has been roundly abused because of it. Nevertheless, even under hostile administrations, it has grown and expanded. The fact is, as all naval men recognize, that with the opening of the Panama Canal the Charleston Navy Yard becomes an invaluable asset of the Navy.

The prime purpose of the canal is to afford a quick means of transferring our battleships from our Atlantic to our Pacific coast. The incomparable superiority of the Charleston Navy Yard lies in the fact that not only is it the nearest yard of first-class equipment to the Panama Canal, but it is the only yard south of Norfolk which is impregnable against an attack by sea. Charleston, although under seige throughout two great wars, has never been captured from the water. Its defenses to-day guarantee it against such a fate in future and make the Charleston Navy Yard, sheltered from storms and protected against any hostile fleet, the great strategic base from which any possible naval warfare of the future is most likely to be conducted.

Admiral Edwards says:

It behooves the thoughtful and progressive officers of the Navy to give immediate, extended, and careful consideration concerning the possibilities of development of the Charleston (S. C.) naval station. Whether viewed from a financial, industrial, or strategic standpoint, the progressive, if not the rapid development of this naval station, intimately concerns the efficiency and operation of the fleet.

For military and strategic reasons it appears of paramount importance that there be developed on the Atlantic coast at some point south of Cape Hatteras a naval station capable of docking and repairing our largest and most important battleships. The protection of the Isthmian Canal, a project that involved an expenditure of about $400,000,000, combined with the general existing belief upon the part of naval experts that if the fleet of the United States will ever be called upon to engage in battle, the contest will take place in the Caribbean, makes it a matter of importance to the efficiency of the fleet that there be developed on the mainland of the Atlantic coast—and independent of any projected outlying naval base—a first-class naval station.

Senator BALL. Senator, what is the distance between the Charleston Dry Dock and the Caribbean Sea?

Senator SMITH of South Carolina. Oh, it is less than a hundred miles. You see here Cuba and the bend of the Central American coast comprise what is known as the Carribean Sea and its line.

Senator BALL. I just want to figure that up. How far is it from Norfolk over there to Charleston?

Senator SMITH of South Carolina. From Norfolk to Charleston——

Senator DIAL. It is about 500 miles.

Senator BALL. It is about 400 miles.

The CHAIRMAN. I suggest to the committee that these things are capable of being ascertained with exact certainty—these distances.

Senator SMITH of South Carolina. Oh, yes; you can get those.

Senator BALL. I understood the Senator to say that the distance was 2,000 miles on the coast and yet only 100 miles from Charleston down to the Caribbean and only 400 from Charleston up to Norfolk. I could not understand where he got the additional mileage.

The CHAIRMAN. He means that the 2,000 miles is following all indentations and curves clear around the peninsula of Florida and up to Alabama and down to Galveston.

Senator BALL. You must take in, then, the dry dock at New Orleans.

Senator SMITH of South Carolina. I take in the floating dry dock at New Orleans. Here you start [indicating] and here is your coast line. Of course it is coast line clean down to Galveston.

The CHAIRMAN. Senator Ball was comparing the discrepancy of 2,000 miles. You mentioned 100 miles and I was explaining how it came about.

Senator SMITH of South Carolina. The coast line as it runs down around the Florida Peninsula goes around and from the Florida Peninsula. It is quite a short distance to the Caribbean Sea. The Gulf being to the west of it and the Caribbean Sea to the south and southeast of it, has nothing to do with the coast line exposed, because

you come from Galveston along the whole Gulf coast around the peninsula of Florida and up to Charleston. That is a coast line as a matter of course. Of course, if you are going to take an air line through the country you would not get the coast line.

Senator HALE. How can you say that the Caribbean Sea is within 100 miles of Charleston?

Senator SMITH of South Carolina. I was just making a rough guess.

Senator HALE. Going in what direction?

Senator SMITH of South Carolina. Going a little to the west of Cuba. Here is the map showing it.

The CHAIRMAN. Down through the Windward Passage?

Senator SMITH of South Carolina. Yes.

The CHAIRMAN. Do not let us take up too much time with respect to these distances. That can be ascertained, of course.

Senator BALL. Yes; we can get all those distances.

Senator HALE. That is not of importance, the distance to Galveston, but I do not see how you make it that.

Senator SMITH of South Carolina. I was just making a rough guess. I was estimating the distance from Charleston to Cuba. It would be further than that; yes.

Mr. Chairman, the record is full of the reports from the different admirals, that there should be south of Hatteras a dock sufficient to take our largest naval vessels.

Senator DIAL. That is the unanimous opinion.

Senator SMITH of South Carolina. I do not think there is a dissenting view on the part of any of those who have investigated it. At the entrance of Charleston Harbor is Fort Sumter, in the stream 5 miles above the city. It is absolutely safe from attack from the sea.

The CHAIRMAN. Senator Ball, you have paid special attention to this Charleston matter and I am depending upon you a good deal for advice in the matter, and for that reason I wish you would listen carefully to Senator Smith's statement, if you please.

Senator SMITH of South Carolina. Mr. Chairman, I desire to correct a statement that I made with regard to that distance.

Senator BALL. I think it would be well for you to correct that statement.

Senator SMITH of South Carolina. I want to.

Senator BALL. It is over 500 miles. You made the statement that it was 100 miles. I am very familiar with the figures with respect to that, as I have been over it very frequently.

Senator SMITH of South Carolina. I was thinking of off the coast of Florida.

Senator BALL. I did not think you wanted to make a statement of that kind and allow it to go into the record without your attention being called to it.

Senator SMITH of South Carolina. Certainly not. I was thinking of off the coast of Florida—the coast line—when I made that statement.

Now, you will find in the record that everyone who has given attention to this matter, all the admirals, that they are unanimous in their statement that it is necessary to have south of Hatteras a dock sufficiently large. They all say it is the best place along the coast

line; that Charleston is preeminently the place for it, in view of the fact that it is practically the only real seaport on the south Atlantic.

In addition to that, Mr. Chairman, the commercial situation is such that if we are going to mobilize our great industries and have the proper facilities for shipment to the rapidly developing commerce of this country, it is essential that there shall be somewhere on that vast coast line a place where the large merchant marine can dock and find facilities for docking.

Senator BALL. Right at that point, Senator, I would like to ask one question to bring out a fact. Do you know why when they located the yard and built the first dock, completed in 1908, that they took that yard so far up the river above Charleston and above all your necessities for merchant marine? You are 7 miles up the river from Charleston where all your merchant ships have their docks.

The CHAIRMAN. Some one had a piece of land up there to sell probably.

Senator SMITH of South Carolina. No; I think the explanation is to be found in this, that Charleston is a peninsula that narrows rapidly and the railroad facilities or yard facilities as the peninsula widens gives better and more ample room both for the terminals of the railroads that necessarily will have to come in, and not necessitate their running in and backing out. They will have ample leeway. The Government has built just north of that yard one of the greatest terminals on the Atlantic seaboard, at a cost of $17,000,000, and they have ample water; and they brought in the troops and discharged the troops in lesser time, or in as short a time as they did anywhere else.

Senator DIAL. If I may interrupt, Mr. Chairman, as I am wanted on the floor of the Senate, I will state that my colleague is much better posted on this matter than I am, and knowing that this will be the only dry dock in that great territory, I feel that it is absolutely necessary that this authorization should stand, and I would feel personal humiliation if it were repealed.

This is the only appropriation, I believe, that has been made where there has been any effort made to repeal it. I shall be glad to assist the committee with any information I can afford them at any time, but I know that Senator Smith is much better posted than I.

Senator SMITH of South Carolina. Mr. Chairman, we are all aware of the fact that during the war the condition that resulted in the congestion at the port of New York was disastrous because of the lack of docking facilities and terminal facilities and the open sea. At Charleston there is, of course, an open sea the year around. I have, but I did not bring with me—and if the committee should see fit to use them—I have telegrams that have come from all over the West and Middle West as far up as Minneapolis, indorsing the development of this port to meet the necessities of commerce. It is absolutely essential to the saving of freight and the development of its proper balance and the capitalization of our commerce that facilities for the docking of our larger merchant marine shall be somewhere south of Hatteras.

The ACTING CHAIRMAN. It is not the policy is it, Senator, of the Government to build docks for the merchant marine?

Senator SMITH of South Carolina. Oh, I think the Government does. They get a good deal of revenue from it.

The ACTING CHAIRMAN. I think probably they do, but as I understand—and I am only asking to get your views on it—the function of this committee is to build purely with a view to naval needs.

Senator SMITH of South Carolina. Surely, and in legislating for the naval needs I should think it was clearly within the function of this committee to see just how much a Government utility may be used by private enterprise, in that way aiding the upkeep and in the lessening of the cost and the increasing of revenues—for I take it the Government would charge for the docking of private vessels or the utilization of their docks.

Senator HALE. You were saying that you thought one of the advantages at Charleston was that it is open all the year around. You do not mean to say that the various ports at Boston, Norfolk, and Philadelphia are not open all the year around?

Senator SMITH of South Carolina. Sometimes. In 1917 and 1918—I believe that was the winter they had considerable difficulty in getting coal out to bunker their ships on account of the ice.

Senator HALE. Well, they had minor troubles for a short time.

Senator SMITH of South Carolina. They had real and considerable trouble that year. I know that because I was chairman of the Interstate Commerce Committee at that time.

Senator HALE. But the ports are open the year around.

Senator SMITH of South Carolina. But I know there was quite a good deal of difficulty in getting the coal out to bunker the ships.

Senator BALL. You say that we could get considerable revenue from private ships being docked at those yards. You must remember that your dry docks are so far away, and your piers are so far away from the docks, the commercial docks, that it is almost inconceivable that they could be used for that purpose.

Senator SMITH of South Carolina. Why?

Senator BALL. It is 7 miles upstream.

Senator SMITH of South Carolina. According to the statement here, of course the 2 miles would make but very little difference.

The CHAIRMAN. I think it would make a good deal of difference.

Senator SMITH of South Carolina. But you have an open straight channel right to the dry dock, and they have ample leeway for turning. They have all the water that is necessary at that part of the river—it is really not a river. The peninsula of Charleston projects out into the bay and forms two estuaries on either side—one the Ashley River on one side, and the Cooper River on the other. It is really just a part of the bay.

Senator BALL. I was going to add that so far as my inspection of the different yards is concerned, we are not able at the present time to have sufficient dockage space for our own naval ships, and to make preparation for the dockage of private ships at this time at this place or any other place would certainly be to the disadvantage of the naval owned craft. Take it in almost all the yards—when you take it in your own yards you need additional wharfage, because the small craft that you have there now have no place to tie up to the wharves; they are merely out in the stream and the repairs that are to be made on those ships have to be made out in the stream.

Senator SMITH of South Carolina. That is only emphasizing the argument that I am making here now. Of course the Government would utilize all the docking facilities.

Senator BALL. You must draw a line between wharves and docks. If you built a large dry dock there you need that additional wharfage for that dry dock. At present you have wharfage for your present dry dock.

Senator Smith of South Carolina. I see the Secretary of the Navy says here:

Although the board believes that increased docking facilities are an urgent naval need, and that a second dock is required at Charleston to properly develop the station, it is of the opinion that until additional dry docks of the larger size are provided, etc.

It added in its opinion, however, that "until additional dry docks of the largest size are provided at certain other important stations on the Atlantic, Gulf, and Pacific coasts, the construction of an additional dry dock at Charleston should be postponed." It was in the spirit of that recommendation that work was pressed on the dry docks, particularly at Boston and Norfolk and Philadelphia, before beginning work on the dry dock at Charleston, for which Congress had given authorization and appropriation. In a comprehensive review the strategical importance of our naval stations to the Senate Naval Affairs Committee of Congress, Admiral Edwards said:

The CHAIRMAN. What is the date of that letter?

Senator SMITH of South Carolina. This is dated August 5, 1913.

The CHAIRMAN. That is from the Secretary of the Navy?

Senator SMITH of South Carolina. This was from the board.

The CHAIRMAN. The Naval General Board?

Senator SMITH of South Carolina. Yes—the Board of Inspection and Survey of Shore Stations.

The Secretary says in a letter to me that the wharfage would not be as essential now as the dock itself. I will get that letter for the committee.

Senator BALL. The Secretary's letter does not agree though with the naval officers in charge of the dock. Their testimony before us was very emphatic that the most urgent need was for wharfage to make it an economic yard.

Senator SMITH of South Carolina. I will find that, Mr. Chairman, and insert it in the record.

Now, as I said a moment ago, we have no facilities south of Hatteras for taking care of our larger ships.

The CHAIRMAN. Senator Smith, I suggest that those papers you refer to, you take your time to get and put them in the record.

Senator SMITH of South Carolina. I will. Here is a brief that I would like to call attention to as showing the necessity for the development of this port. It is as follows:

1. The United States Government expended about $17,000,000 on Army terminals three miles above the navy yard. The ordnance department thereof is still retained by the Government, but the great modern warehouses are to be taken over by a semi-public corporation in the interest of the public and is prepared to handle all classes of business and ships from every point in the United States, which will result not only of commercial benefit to the country, but we hope profitably to the Government itself. There is now 30 feet of water to these terminals with sufficient turning basin, and their ability to handle any character of business is demonstrated by the fact that some 50,000 troops were landed here from ex-German liners, and also from the fact that they had handled considerable commercial business.

2. The navy yard itself did not only handle naval ships but has been a great aid, especially the dry dock, in handling during peace times merchant ships. Two dry docks from a commercial angle would be helpful, or if any thing happens, as has happened in the past, to the dock the result is a costly and long delay in time of peace and distress in time of war.

3. The Standard Oil Co. is now constructing and has almost completed, a great modern refinery at Charleston, reputed to cost around $10,000,000, located about 3 miles below the navy yard. This company has already started to refine crude oil

imported from Mexico. Recently the public press has announced the consummation of a contract by the United States Shipping Board with this company to oil bunker all of the Shipping Board ships at Charleston from the Gulf and South Atlantic, especially for European ports. It is reported that there will be some 40 to 50 ships per month who will so bunker. The need of bunkering ships from the Gulf is caused by the fact that their capacity is insufficient to carry the ships from a Gulf point to Europe and return without bunkering in a European port, where the cost of such oil would be very excessive. By bunkering at Charleston they can make the round trip, thus saving the Government a very considerable sum of money.

The CHAIRMAN. Senator, would it not be just as well to put that entire statement or brief into the record?

Senator SMITH of South Carolina. I would like to bring it to your attention, especially in view of this next paragraph, because it is a matter of such vital importance to the department, the commerce of the Middle Atlantic and Southern States. Now that we are hoping to have a merchant marine to revive our commerce, it seems to me that it is a matter of great or vital importance to us than even this committee can realize.

The CHAIRMAN. I think the committee understands the general situation about the terminal that the Railroad Administration established there, and the establishment of the plant of the Standard Oil Co., all tending to develop the port of Charleston. But the question—and this may tend to expedite matters here—that has been urged before this committee does not involve any of those propositions at all. For the purpose of this inquiry, all of that may be considered as established. It is urged that from the standpoint of the care of capital ships of the Navy—and that is the purpose of building a large dry dock—that this is not a good location; that it is too far from the actual harbor of Charleston; that it is expensive to maintain a sufficient channel to get capital ships up to the dock there, and if it is built it would be a good deal like Robinson Crusoe's boat that he worked on so hard, and then could not put it in the water after building it.

Senator SMITH of South Carolina. Very well, Mr. Chairman, I will put this entire paper in the record.

(The paper referred to is here printed in full, as follows:)

SOUTH ATLANTIC STATES ASSOCIATION,
Washington, D. C., February 15, 1921.

Personal.

Hon. E. D. SMITH,
United States Senate, Washington, D. C.

DEAR SENATOR SMITH: In accordance with your request, I am submitting briefly a few commercial facts in regard to the Charleston situation, which I have already outlined during our talks. I am also sending you a résumé of all the telegrams, letters, etc. If I can be of any further help and secure any data that you may think necessary, I will be glad to have you call on me, or wire.

Very truly, yours,

A. V. SNELL.

THE CHARLESTON 40-FOOT CHANNEL.

FEBRUARY 15, 1921.

1. The United States Government expended about $17,000,000 on Army terminals 3 miles above the navy yard. The Ordnance Department thereof is still retained by the Government, but the great modern warehouses are to be taken over by a semi-public corporation in the interest of the public and is prepared to handle all classes of business and ships from every point in the United States, which will result not only of commercial benefit to the country but, we hope, profitably to the Government

itself. There is now 30 feet of water to these terminals, with sufficient turning basin, and their ability to handle any character of business is demonstrated by the fact that some 50,000 troops were landed here from ex-German liners, and also from the fact that they had handled considerable commercial business.

2. The navy yard itself did not only handle naval ships, but has been a great aid, especially the dry dock, in handling during peace times merchant ships. Two docks, from a commercial angle, would be helpful, or if anything happens, as has happened in the past, to the dock, the result is a costly and long delay in time of peace and distress in time of war.

3. The Standard Oil Co. is now constructing, and has almost completed, a great modern refinery at Charleston, reputed to cost around $10,000,000, located about 3 miles below the navy yard. This company has already started to refine crude oil imported from Mexico. Recently the public press has announced the consummation of a contract by the United States Shipping Board with this company to oil bunker all of the Shipping Board ships at Charleston from the Gulf and South Atlantic, especially for European ports. It is reported that there will be some 40 to 50 ships per month who will so bunker. The need of bunkering ships from the Gulf is caused by the fact that their capacity is insufficient to carry the ships from a Gulf point to Europe and return without bunkering in a European port, where the cost of such oil would be very excessive. By bunkering at Charleston they can make the round trip, thus saving the Government a very considerable sum of money.

4. The Southern Railway Co. has constructed, within the last few years at Charleston, a modern coal terminal handling some 1,800 tons per hour. It is understood that this terminal will be doubled as soon as financial conditions permit. The demands on this terminal have been very great, especially in the exporting of coal to foreign ports as well as the bunkering of vessels. This coal is brought from Pocahontas and Clinchfield coal fields of Virginia, West Virginia, and eastern Kentucky. The business is also developing through eastern Tennessee.

5. Charleston has long been known as a harbor of refuge for the reason that it is a natural habor, its rivers being but arms of the ocean ending about 20 miles in the interior. The harbor is of easy access, a safe anchorage being reached after picking up the lightship, requiring but one turn in the channel to reach such safe anchorage. It is constantly being used by ships in distress. It is, therefore, especially necessary that there should be a deep channel entrance which can care for ships of the greatest draft, for in time of storm and stress a leeway of 6 or 7 feet should be possible for any ship.

Generally it should be borne in mind that to attain a uniform depth of 40 feet it is not necessary to dredge the entire Cooper River channel, but only the channel entrance and several places in the river itself, for the reason that the depth of water, after passing over the channel entrance, varies, at places being as deep as eighty-odd feet. Off of the wharves of the city proper it ranges from 45 to 60 feet, and at other places just below the navy yard from 40 to 45 feet. (For these figures of water depth, see recent United States Geological Survey map 470).

According to the last reports of the Army engineer's office, the foreign trade business of Charleston Harbor multiplied ten times. No other port compared with this increase. While some of the commercial business has dropped off recently, without doubt these figures will be exceeded because of the rapidly increasing importation of crude oil and also because of the rapidly developing business from the midwestern territory which is resulting from the fact that all southern ports have been placed on an equal export rate basis from this midwest territory with the port cities of the North Atlantic. With the reestablishment of the American-Hawaiian Line from the Pacific coast, there is also a constantly increasing business from the Pacific ports. All of this business with the ever-increasing draft of vessels passing through the Panama Canal requires, from a commercial standpoint alone, a deep water channel to the navy yard and the Army terminals just above.

Synopsis of Telegrams and Letters Received from Various Chambers of Commerce.

Alabama: Senators Underwood and Heflin. Strong indorsements from Montgomery Chamber of Commerce.

Georgia: Senators Smith and Harris. Support from Atlanta and Macon Chambers of Commerce.

Florida: Senators Fletcher and Trammell. Support from Jacksonville Chamber of Commerce.

Louisiana: Senators Ransdell and Gay. New Orleans Board of Trade, and also Association of Commerce.

Maryland: Senators Smith and France. Indorsement by directors of Merchants and Manufacturers Association. Secretary of this organization with myself saw these Senators in person.

Tennessee: Senators McKellar and Shields. Very strong letters from Nashville Commercial Club.

Texas: Senators Sheppard and Culberson. Telegrams and letters from West Texas Chamber of Commerce.

Missouri: Senators Spencer and Reed. Strong letters and telegrams from Kansas City Chamber of Commerce.

West Virginia: Senators Sutherland and Elkins. A strong letter from the Parkersburg Chamber of Commerce.

Michigan, Townsend: Minnesota, Nelson and Kellogg; Wisconsin, Lenroot: A strong letter of indorsement from the Great Lakes Association, which reminded these four Senators of the support on our part of the Great Lakes-Atlantic Ocean Ship Canal, and requested their support for Charleston.

Iowa: Senators Kenyon and Cummins. A very strong telegram from the Des Moines Chamber of Commerce.

New Jersey: Senator Frelinghuysen. We are attempting to get in touch with this Senator through certain Charleston parties who are friends of the Senator.

GENERAL REPORT.

Mr. Hale, president of the South Atlantic States Association, and myself have either jointly or individually seen the following Senators:

Senator Smith of Georgia; Senators Fletcher, Ransdell; Senator Smith of Maryland; Senators France, McKellar, Sheppard; Senators Spencer, McNary, McCormick.

So far as the Democratic Senators are concerned, we naturally expected their support and are looking to our Senators to cover this ground so far as possible. Senator Spencer, of Missouri, will possibly support, though he complains of the large appropriations in the last eight years made for southern projects. Senator McNary is interested only, he states, in the commercial development of the port and its relation to the Nation. I am sending him brief commercial data at his request. Senator McCormick was seen by Mr. Hale, and he is hopeful of securing his support. The telegram to Senator Kenyon should be followed up by our Senators, also following the letters to other Senators—Sutherland, Elkins, Townsend, Nelson, Kellogg, Lenroot—these Senators should be seen by Senators Smith and Dial. Senator Chamberlain, of Oregon, has visited Charleston and is a good friend of the port.

Senator SMITH of South Carolina. Mr. Chairman, will the committee investigate the docks that we have north of Hatteras to see which one, so far as reaching the dock from the sea is concerned, is superior to the one at Charleston?

The CHAIRMAN. My mind is entirely open upon the subject. I just wanted to draw you out on it.

Senator SMITH of South Carolina. I think you will find that the dock at Charleston is perhaps as accessible if not more accessible than the major portion of the docks north of Hatteras. I will get the figures up to date and submit them to this committee before you make your report, showing the amount of channel that you have to go through to reach the different docks, their length, and compare them with Charleston, and their facilities, and the ease with which they are kept up, and the ease with which the dock is reached. There are very few turns, if you will notice from the map I have here, from the sea to the Charleston dock; there are very few turns in the channel from the sea to the Charleston Navy Yard. It is 15 miles from the sea, if I remember correctly, to the dry dock.

Senator BALL. No; it is 22½.

Senator SMITH of South Carolina. Well, that remains to be definitely ascertained.

Senator BALL. It is 15 miles to Charleston.

Senator SMITH of South Carolina. My impression was that it was 15 miles from the dry dock to the open sea. There are hardly any

turns in the channel, and I should say that the dry dock was the easiest to reach, or the harbor is the easiest entered, or as easy as any we have on the Atlantic seaboard.

Senator SWANSON. What does the river and harbor appropriation bill appropriate for that now?

Senator SMITH of South Carolina. Do you mean how much we appropriate now?

Senator SWANSON. Yes; what are they doing with it; are they using that?

Senator SMITH of South Carolina. Yes.

Senator SWANSON. I simply wanted to know what the rivers and harbors appropriation provided.

Senator BALL. The rivers and harbors bill of 1918 made an appropriation of $1,500,000 for the beginning of this project of 1,000-foot channel, 40 feet in depth, on the condition that the dry dock should be authorized.

Senator SWANSON. I thought we made it the condition the appropriation was made.

Senator BALL. The appropriation was made conditional on the authorization of the dry dock. They have a 30-foot channel, 500 feet in width now, up to the present dry dock.

The CHAIRMAN. That is not sufficient for our capital ships.

Senator BALL. No; but it is sufficient for any ship that the present dry dock would dock.

Senator SMITH of South Carolina. Now let me read a letter from Admiral Parks on this very point.

Senator BALL. In connection with the Senator's suggestion, I was going to say that of the $1,500,000, practically all but $72,000 of it has been contracted for or expended; most of it has been expended and the balance of it contracted for deepening this channel to 40 feet and widening it to 600 feet in places and 1,000 in other places, but they have not carried it out.

Senator SWANSON. Have they carried it up above the present dry dock?

Senator BALL. Up to the present dry dock.

Senator SWANSON. They have not carried it beyond?

Senator BALL. No.

Senator SWANSON. How deep have they made the water?

Senator SMITH of South Carolina. They have dredged 40 feet already.

Senator SWANSON. How much more will it take to complete it?

Senator SMITH of South Carolina. Just let me——

The CHAIRMAN. I do not think that ought to go in the record as I think it is not correct. I may be mistaken myself. You say they have already gotten a 40-foot channel clear up to this dry dock?

Senator BALL. No, sir.

The CHAIRMAN. But you just did say so.

Senator BALL. I said it was authorized, not completed.

The CHAIRMAN. But Senator Swanson asked you if they had it up beyond the dry dock.

Senator BALL. I said it was authorized to go up to dry dock only.

The CHAIRMAN. He asked you how much was completed.

Senator BALL. I had a letter from Secretary Baker a few days ago stating that they had it about one-tenth completed.

Senator SWANSON. You mean up to the present dry dock?

Senator BALL. Yes, sir.

Senator SMITH of South Carolina. Let me read what Admiral Parks says——

Senator SWANSON. Only one-tenth completed with a million and a half? What do they estimate it will take to complete it?

Senator BALL. He makes the further estimate to complete it at a little less than $4,000,000—three million nine hundred thousand and some odd dollars. But the estimate of all the engineers when we were down there, was $7,500,000, and that was the department's estimate at that time, and on my cross-questioning him, he said they had reduced his figures; but it would be more expensive than that because they had to move the material twice, and almost all of it had to be taken out into the deep water, and that instead of 30 cents that they had figured on, it would cost 50 cents. In my judgment they could not dredge for less than $9,000,000.

Senator SMITH of South Carolina. Here is a letter in response to the very point the Senator is making, dated January 7, 1921, from Admiral Parks:

NAVY DEPARTMENT,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., January 7, 1921.

MY DEAR SENATOR: In compliance with your request contained in your letter of January 7 there is attached hereto a statement of work done and amount expended of appropriation made available for construction of dry dock at the navy yard, Charleston, S. C.; appropriation carried in the naval appropriation act of 1918.

Very truly, yours,

C. W. PARKS, *Chief of Bureau.*

Hon. L. H. BALL,
United States Senate, Washington, D. C.

INFORMATION CONCERNING PROPOSED DRY DOCK NO. 2, NAVY YARD, CHARLESTON, S. C.

COSTS OF NAVAL DRY DOCKS AND APPURTENANCES.

Naval act approved July 1, 1918, provided $1,150,000 toward the construction of a large dry dock (limit of cost $4,000,000) at the navy yard, Charleston, S. C.

The rivers and harbors act approved by Congress July 18, 1918, contained the following item relative to dredging in Charleston Harbor and Cooper River:

"Charleston Harbor and channels, South Carolina: Continuing improvement and for maintenance, $110,000; for improvement to provide a channel forty feet deep and one thousand feet wide, extending from the sea to the Charleston Navy Yard, $1,500,000: *Provided*, That this work shall not be undertaken until the proposed new dry dock at this navy yard, carrying a depth of forty feet of water over the blocks, has been authorized; in all, $1,610,000."

STATUS OF DRY DOCK PROJECT AT PRESENT TIME.

Preparations have been made for the construction of the pump-well section of the dock by yard labor. The department has been in communication with the yards where excess material is known to be available, with a view to having this material transferred to Charleston for use in the construction of the pump-well section of the dry dock.

Of the funds appropriated by Congress for the construction of the dock, there has been obligated to date a total of $60,541.67, of which $37,730.67 was obligated since Congress adjourned on June 5, 1920.

Careful estimate of the cost of constructing Dry Dock No. 2 at the navy yard, Charleston, S. C., indicates that this dock will cost approximately $4,750,000.

STATUS OF DREDGING COOPER RIVER PROJECT.

The original estimated cost of this project was $7,540,000. This amount of money contemplated a 40-foot channel, 1,000 feet wide. Included in this amount was $1,000,000 for the purchase of a dredge. The War Department now considers that this will not be necessary. The rivers and harbors act of 1918 appropriated $1,500,000 for this project. The 1920 annual report of the War Department states that to carry on the work for the next fiscal year will cost $1,900,000. In this amount was included $400,000 for reconstructing a dredge. The War Department now considers that it is possible that this expenditure will not be necessary. On inquiry at the War Department as to the probable cost of a 600-foot channel, 40 feet deep, 1,000 feet on turns, advice was given that while it would be necessary, of course, to make a careful estimate of this, it was considered that the cost would be about a half of the original estimated cost, namely, $3,770,000.

Of the amount, namely, $1,500,000, appropriated in the rivers and harbors act approved by Congresss July 18, 1918, for dredging Cooper River, $995,296.49 has been expended.

In addition to the foregoing, there is now covered by existing contracts and outstanding liabilities, $434,042.52.

Work on contract dated December 1, 1919, with the United Dredging Co., was started in November, 1920. Amount of this contract was approximately $259,927.

The work on this particular contract was 27 per cent complete on December 1, 1920.

So the committee will see that after investigation they found that a channel 600 feet wide and 1,000 feet on the turn would be all that would be necessary to accommodate our capital ships. In place of the estimated cost of $7,540,000 which included a new dredge, and also included the repair of an old dredge, that something like $1,400,000 was taken off there. Then by narrowing the channel to 600 feet and only 1,000 feet on the turn, their estimate here, according to Admiral Parks, would be $3,770,000.

Senator BALL. Mr. Chairman, I ask permission to put in the record a letter that I have received from Secretary Baker.

The CHAIRMAN. You may put it in and call attention to any portion that you desire later. I would like to get through with this item.

Senator BALL. It is very important in my judgment from the fact that he specifically states in this letter——

The CHAIRMAN. Just read it——

Senator BALL. That there has been an expenditure of $995,296 and the contract is only one-tenth completed.

Senator SWANSON. Read it.

Senator BALL. He writes as follows:

In response to your letter dated January 7, 1921, requesting a statement of the expenditures and work done under the appropriation of $1,500,000, provided by the rivers and harbors act of July, 1918, for the 40-foot channel in Charleston Harbor, I have the honor to inform you that to December 1, 1920, the amount expended on this improvement was $995,296.49, leaving a balance of the appropriation amounting to $504,703.51. Of the latter amount the following sums are pledged—on account of outstanding liabilities, $44,304.94; existing contracts, $389,737.58, making a total of $434,042.52; amount available, $70,660.99.

The work done on the project has consisted in operation by Government dredges and by contract dredging under which there has been removed 2,458,110 cubic yards of material. The entire project is reported to be 10 per cent completed, as of date December 1, 1920.

Full report concerning this improvement will be found at pages 682–686 of the Annual Report of the Chief of Engineers for the fiscal year 1920, and for your convenient reference there are inclosed proof sheets of those pages.

Very truly, yours,

NEWTON D. BAKER, *Secretary of War.*

The CHAIRMAN. Senator Smith of South Carolina has been detained in the Senate, and we will suspend on this matter for the present and take up the matter of recreation in the Navy.

RECREATION IN THE NAVY.

STATEMENT OF CAPT. D. F. SELLERS, BUREAU OF NAVIGATION.

Capt. SELLERS. Mr. Chairman, the item of recreation for enlisted men in the naval bill as it passed the House provides for only $800,000 which will not permit the bureau to continue the work of furnishing educational facilities and libraries for enlisted men.

During the past year the bureau allotted $32,000 from the appropriation for recreation of enlisted men to conduct certain experimental schools on board ships of the Navy. The experimental schools comprise a modified correspondence course, which is not compulsory, to teach the men academic subjects as well as professional subjects.

The essential difference between the scheme experimented with and the ordinary correspondence course is that lesson assignments are handed out to the men. They are worked over in the men's spare time and handed in to the officers of the ship who correct the papers and furnish assistance to the men until they give them the next installment.

There has been an instantaneous response to this educational scheme. On board the battleship *Tennessee*, for example, nearly 60 per cent of the crew were immediately enrolled, and they ran the school very successfully there.

On board the destroyers at Charleston there are about 18 applicants for those papers. The men are intensely interested. More than 50 per cent of the men are enrolled in those courses and the progress has been very gratifying. It has resulted not only in the men being contented, and proving their ability on board ship, but it has resulted in an increased economy of fuel consumption, and the men are improving their professional knowledge.

We had hoped to have a separate item in the appropriation bill introduced for the school system, but the House Naval Committee did not report any such bill out. Therefore we find ourselves now without any or will find ourselves at the end of the year without any funds to continue this work. The experiment we consider has been very successful.

Senator BALL. The House has not put any appropriation in the bill for that purpose?

Capt. SELLERS. No, sir; we estimated a certain sum to come under the new heading, as all new legislation has to come from the House Naval Committee.

Senator BALL. Did they have an approrpation in their legislative bill prepared for it?

Capt. SELLERS. No, sir; they did not report it out of the House Naval Committee. That is the way we had counted on obtaining these funds. Now that it has been reported out, we find ourselves without any funds, but under the broad heading of enlisted men, which provides for recreation, comfort, and contentment of the

men, it is quite legal to expend money for that purpose—furnishing educational facilities for the men.

The CHAIRMAN. What amount are you asking for?

Capt. SELLERS. We are asking for $498,000 for educational training and libraries. The libraries are very intimately connected with the educational system.

The CHAIRMAN. There is a provision for libraries in the bill. I am sorry you have not the page of the bill.

Lieut. HILL. Mr. Chairman, it is at the bottom of page 7 and top of page 8. Line 24, page 7, is where it starts.

Capt. SELLERS. Heretofore we have gotten library books from the appropriation for instruments and supplies, but this year when we tried to get the money appropriated in another way we did not estimate for it in instruments and supplies. Therefore if we do not get it in this way we have no provision for it in instruments and supplies, and would be without allotment for library books. It is quite important.

The CHAIRMAN. That particular service was not included in that item?

Capt. SELLERS. We did not estimate for that when we sent in the estimates, because we expected to get it in this other manner. Now, if we lose out on this we have lost out altogether.

Senator BALL. Did the House committee in preparing this bill understand that it was to be in the other bill?

Capt. SELLERS. Yes, sir; in a separate bill.

Senator BALL. They took that into consideration?

Capt. SELLERS. Yes, sir; we told them that at the time.

The CHAIRMAN. You say you had $32,000 last year?

Capt. SELLERS. Yes, sir.

The CHAIRMAN. And you are asking for $400,000 this year?

Capt. SELLERS. We just experimented last year on certain ships. We had 6 large ships and 18 destroyers. We have 6,000 men now enrolled taking this course.

The CHAIRMAN. What is the lowest figure?

Capt. SELLERS. From the statistics that we have at hand now—we have only been at it a portion of a year—it has cost us $8.26 per man to furnish these facilities, the books, and the course. We figured that about 40 per cent of the personnel will take these courses.

The CHAIRMAN. Is that all you desire to say, Captain?

Capt. SELLERS. Yes, sir. I would like to emphasize the fact, however, that unless this appropriation is increased, we will find ourselves without anything to carry on this work, having counted on the other method of obtaining the funds.

The CHAIRMAN. Very well; the committee will give your matter full consideration.

The committee will now hear from Admiral Washington.

STATEMENT OF REAR ADMIRAL THOMAS WASHINGTON, UNITED STATES NAVY.

Admiral WASHINGTON. Mr. Chairman this, as I understand it, is on the legislative part of the bill that was passed by the House.

The CHAIRMAN. I think you had completed your recommendation as to the appropriation bill, had you not?

Admiral WASHINGTON. Yes, sir.

Admiral COONTZ. Mr. Chairman, I asked Admiral Washington to come here on this matter, because we are both jointly interested.

Admiral WASHINGTON. This is H. R. 15994.

Senator BALL. That is the legislative bill?

Admiral WASHINGTON. Yes, sir; favorably reported from the House Naval Affairs Committee. As I understand it, sections 1, 2, and 3 have already been acted upon by the committee in the Chief of Bureau of Supplies hearings.

Admiral COONTZ. Except that two of them are handled in either the deficiency bill or the appropriation bill, so there is nothing to be done about them.

Senator BALL. They are already cared for?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. What sections are those?

Admiral WASHINGTON. One, two, and three and probably four.

Senator BELL. Are all three of those sections cared for by the deficiency?

Admiral COONTZ. Two of them are, but the one regarding clothing outfits was handled here Saturday.

Admiral WASHINGTON. And section 4, I understand, is the same.

Admiral COONTZ. Section 4 is aviation, and the committee was was going to handle that in another manner.

Senator BALL. We took up the aviation, too.

Admiral COONTZ. Yes, this committee did.

Admiral WASHINGTON. Section 5, I understand, has also been handled.

Admiral COONTZ. I ask that section 5 be stricken out. I made that request the first day I was here and explained why.

Admiral WASHINGTON. That is naval districts.

Admiral COONTZ. It is in the other bill as well as here, and I ask that it be stricken out.

Senator BALL. You are so opposed to that provision?

Admiral COONTZ. I am opposed to that provision because it eliminates the administrative power and it cripples the work of operation. All those districts have now been reduced down to where the command is within a navy yard, or some other place within it, except three—New York, Boston, and San Francisco.

Senator BALL. You thought probably they would be reduced to two?

Admiral COONTZ. I expect to reduce it to two and possibly one, but it would hurt us very materially in our work if that went into effect.

Admiral WASHINGTON. It would be a limitation on the administrative power of the Secretary which might work very unfortunately in some respects.

Admiral COONTZ. I think we have shown our good purpose in bringing them down to these three. The next would be San Francisco or probably Boston. But we would like to do it slowly, naturally ourselves.

Lieut. HILL. Admiral, I think it might be well to call the attention of the committee—for use in conference—to the fact that Gov. Kelly in his hearings on the appropriation bill on the subject of districts, seemed to be laboring under a misapprehension that the cost of main-

taining the district organization was up around between $500,000 and $1,000,000 a year, just for maintaining the organization.

The CHAIRMAN. Would that include all of them?

Lieut. HILL. That includes all of them, but the district organization itself, the commandant's offices, and the organization as a district organization only comes to a total of not more than about fifty or sixty thousand dollars. It is just a small amount; it is just a skeleton. There are other things that bring the total up to about five hundred and some odd thousand dollars for things which have to go on.

Senator BALL. Are these other propositions to be cared for anyhow?

Lieut. HILL. They have to go on. It is such things as communication—telephone operators and telegraph operators.

Senator BALL. Whether it is a separate organization or not, you have that expense?

Lieut. HILL. Yes, sir; but from an examination of his hearings he seemed to think that with this clause it would eliminate about, roughly, five or six hundred thousand dollars, whereas it would not eliminate more than thirty or forty thousand at the very most, and you destroy this skeleton organization that is absolutely necessary as a basis for a war organization.

Admiral COONTZ. Besides that, if we put them in the navy yard it would not eliminate them.

Lieut. HILL. It would not.

Admiral COONTZ. It is a question which is not understood, but what is left there is a small amount, and we are reducing it all the time. The clerks are going down all the time; they have been reduced 60 per cent.

The CHAIRMAN. I think the committee understands that. How about section 6?

Admiral WASHINGTON. The law authorizes the payment of a gratuity of four months—or it has in the past—of four months for men honorably discharged and reenlisting within a period of four months from the date of discharge. That did not contemplate the two and three year enlistments which Congress authorized us to make two years ago, and the comptroller has held that a man serving through one of those two or three year enlistments and reenlisting within four months is still entitled to four months' gratuity, and the object of this provision was to give them a proportionate part of their enlistment. If they served two years, then they would get two months' gratuity; if they served three years they would get three months. It does not seem right that a man if he has served two years' enlistment and then reenlists should get a four months' gratuity, the same as another fellow who has served for four years.

Admiral COONTZ. And I do not think it was ever intended.

Admiral WASHINGTON. This clause 6 is properly in the interests of the Government and I do not think it is anything more or less than the man understood when he enlisted. It is a perfectly fair and square provision, and it will save a great deal of money.

The CHAIRMAN. About how much?

Admiral WASHINGTON. Two million dollars and something.

Lieut. HILL. $2,046,000.

Senator HALE. Was it not the purpose of the other provision that if you give him a gratuity for a long period that he would be more apt to enlist for a longer period of years?

Admiral WASHINGTON. That was the original idea of it when we first had the three year enlistments, and then we gave them a three months' gratuity for reenlistment. Then we changed it to four years and gave them four months. Now the supposition was when we had those two and three year enlistments that when they reenlisted they would get their proportionate part—two or three months. Instead of that the comptroller has held that they get the full amount under the existing law of four months' pay on coming back.

Senator HALE. No matter what term they enlisted for?

Admiral WASHINGTON. Whether it was two years or three years, they get four months gratuity, under the comptroller's decision.

Senator HALE. That was not the original idea.

Admiral WASHINGTON. No, sir; it was not. I think the changed way contemplated by this law is perfectly fair both to the individual and to the Government.

The CHAIRMAN. Would this language accomplish the idea you have in view?

Admiral WASHINGTON. No, sir; as to the two and three year men it was a temporary measure entirely, and it did not contemplate to continue that beyond the stress which we consider now to have passed, and we have stopped since the 1st of December, or about that time, all two and three year enlistments, and we enlist men only for four years hereafter. Does that answer your question, Senator?

The CHAIRMAN. I think you misunderstood me. I asked you if the language of this section, as it is written here, would accomplish your purpose?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. In correcting the matter?

Admiral WASHINGTON. Yes, sir.

Senator HALE. It would not cut off reenlistment, would it?

Admiral WASHINGTON. Not at all. A man who reenlists now after having completed a two years enlistment has enlisted for four years, but he only gets two months gratuity. In other words, he gets one month gratuity for each year of service.

The CHAIRMAN. This will accomplish that, in your judgment?

Admiral WASHINGTON. Yes, sir.

The CHAIRMAN. How about section 7?

Admiral WASHINGTON. I do not know about that.

Admiral COONTZ. There is no objection to that, I believe, on the part of the department, holding that up another year. I think that was brought out in Admiral Parks statement the other day.

Lieut. HILL. That is a continuation of the wording in this year's bill.

Admiral WASHINGTON. Section 8 I understand to be the same. That is to be handled by the yards and docks. Admiral Peoples discussed section 9, the question of rations, and I think the committee has that all in the hearings.

Senator HALE. How about section 10?

Admiral WASHINGTON. That is a section of the Revised Statutes which was passed, as I recall it, or finally amended in 1881 and has

been in force since. It applies to the various corps of the Navy with the exception of civil engineers and the line. At the time of its passage and until quite recently, our staff officers had no promotion above the grade of captain. Now all of the corps with the exception of chaplains have the same promotions by selection to all grades.

The matter which brought this directly to the Secretary's attention was that last summer a professor of mathematics who had been instructor at the Naval Academy for something like 40 years was made by special act of Congress a lieutenant and allowed to go on the retired list. After serving a short time he went on the retired list and then put in a claim to be retired from the grade of lieutenant to that of commodore. The matter was referred to the Attorney General and the Attorney General decided in his favor, so that he is on the list to-day as having been retired from lieutenant to commodore, and in that respect his pay is higher on the retired list than it was when he was performing active service. There is one more case at the Academy of the same kind there may be others. There are quite a number of cases among those warrant officers who were taken in last summer by the act of June 4, 1920, who will not reach higher under any circumstances than the grade of lieutenant commander, when they will go on the retired list by age. Those are former carpenters and——

Admiral COONTZ. Boatswains?

Admiral WASHINGTON. No; the boatswains are not affected by it.

Senator HALE. This would not work any injustice to anyone, would it?

Admiral WASHINGTON. It might if it is repealed in its present form; but we have asked to have it amended and the Secretary has agreed to it, although I do not know that he has sent a letter here as yet, but I know that this section as it is drawn up meets with his approval. I have talked it over with him and it has his approval, together with that of the various chiefs of bureaus with whom I have discussed it, and that is that section 1481 of the Revised Statutes shall apply to all branches of the naval service, provided that hereafter no officer shall be retired under the provisions of said section who has not at the time of retirement attained the permanent rank of captain in the Navy.

That would require of every officer at least 40 years' service before he is eligible——

The CHAIRMAN. Will that then retire them as commodores?

Admiral WASHINGTON. It will from the grade of captain. That is what section 1481 does now; but it also authorizes retirement from any new grade—lieutenant, lieutenant commander, or commander—and it was to prevent a repetition of cases such as I have spoken of, of the professor of mathematics and various warrant officers who came into the permanent service last summer.

The CHAIRMAN. Have you a copy of your proposed amendment?

Admiral WASHINGTON. Yes, sir.

Admiral COONTZ. The number affected is very few, but at this time to cut those fellows out who have been in the service for 40 or 45 years, from something that they have expected all this time, does not seem right. It seems to me that at the same time a lieutenant should not be retired as commodore. A man who has served over

that, we feel, should be made equal to all of them, and not take it away from a few that would come into it—and mighty few.

Senator HALE. Under this provision a lieutenant who has served for 40 years, if he were retired, he would retire as lieutenant?

Admiral WASHINGTON. Yes, sir.

Senator HALE. And the same as to every rank?

Admiral WASHINGTON. Yes, sir.

Senator HALE. You are sure that this takes care of that situation.

Admiral COONTZ. Yes, sir; I am sure that it takes care of anybody getting anything who has not been in over 40 years—and there are very few of them.

Admiral WASHINGTON. He must have served 40 years and must have reached the permanent rank of captain.

The CHAIRMAN. The committee would like to have your amendment.

Admiral WASHINGTON. I will leave that with the committee.

The CHAIRMAN. Now, how about section 11?

Admiral WASHINGTON. That I think the committee took up on Friday or Saturday. I think you have discussed that—the turning back——

The CHAIRMAN. No; the confinement on bread and water.

Admiral WASHINGTON. That is a matter which the Secretary has written especially about to the committee, and it is something which he has very much at heart. I do not believe the rest of us approve of it very much.

Senator HALE. That is too stern a punishment, is it?

Admiral WASHINGTON. He thinks so, but it has been since the original organization of the Navy and exists in all other service. An officer in charge of the naval prison at Portsmouth, N. H., I believe, was one of the first complainants. He said it barred him out from that and he had no means of punishing his men for infractions of discipline.

Senator HALE. Admiral Coontz, do you agree with what Admiral Washington has said?

Admiral COONTZ. I do.

Admiral WASHINGTON. I think it will cause a great deal of difficulty and interfere materially with the enforcement of discipline aboard ship.

The CHAIRMAN. I suppose that punishment is only imposed in the cases of vicious character, is it not?

Admiral WASHINGTON. That is the general idea of it. There may be exceptions because commanding officers vary in temperament, etc., but it is a long established punishment, and I believe it is something that will materially interfere with the discipline if rescinded.

The CHAIRMAN. As to section 12, we have already handled that matter.

Admiral WASHINGTON. Yes. We handled that the other day, and section 13 also.

Senator HALE. Section 13 is in the House appropriation bill.

The CHAIRMAN. Yes.

Admiral WASHINGTON. Section 14 is a matter which the House Naval Affairs Committee very thoroughly went into, and I believe it is something that should be passed without delay. The provision

here for postponing the time in which these men may file application for retirement is very liberal. We have already retired 50 officers under that provision, and I think there are to-day some 150 applicants awaiting. Many of these officers were taken in at the beginning of the war without any physical examination and ailments probably not known.

I have in mind one case where an officer was, as I recall it, about two weeks in the service, less than three weeks anyway, when he developed tuberculosis to such an extent that they sent him to the hospital at Las Animas, Colo. He applied for retirement and the board of course found that his ailment was not contracted in line of duty, claiming that his short length of service, less than three weeks, could not have developed the tuberculosis to that extent. A strong effort was made to place him on the retired list.

There are other cases where the officers have taken it to the courts to enforce this retirement privilege. One of those officers found his ailment did not exist, and he put in a claim to be returned to active duty.

Admiral COONTZ. We feel that the extension of time to June 30, 1922, gives them plenty of time to find out whether they will make application.

Senator HALE. It was only intended to apply to cases that came up during the war?

Admiral WASHINGTON. Yes. It gave them two and a half years to find out, and then taking the two years of the war, it gives them four and a half years in which to discover it.

The CHAIRMAN. Section 15?

Admiral WASHINGTON. There were several cases where men deserted or were charged with desertion from our service, who went immediately into the service of some of our allies and fought honorably and well, and secured honorable discharges. There is no way by which we can remove a charge of desertion, no matter how creditable a man's record may have been thereafter. The object of this section is for the Secretary to have the discretion in all cases to remove the charge of desertion and to say that the man was not really a deserter. I recall a particular case, that of a young boy named Genet, who deserted from the *Georgia* at New York, went to France and enlisted in the Lafayette Flying Corps. He left his ship and took the first steamer across. It was about seven or eight days between the time he left the ship when he was on his way to France.

Senator HALE. He left for that purpose?

Admiral WASHINGTON. Yes, sir. As soon as we entered the war, this boy announced who he was and wanted to come into our service, but before any action was taken he was killed. I think he had four German planes to his credit. It was that case that brought the matter very prominently to our attention. There is no way in which we can remove a charge of desertion.

The CHAIRMAN. This leaves a certain amount of discretion in the department?

Admiral WASHINGTON. Yes, sir. Mr. McPherson, of the House Naval Affairs Committee, brought to my attention the other day the case of a marine whom they have every reason for believing fell over the sea wall and was drowned and his body never recovered. He was charged with desertion, but his friends and others are satisfied that he was drowned, but in this case we have no means of correcting it.

Senator HALE. It would apply to a man who had deserted before the war, would it not?

Admiral WASHINGTON. No matter how creditable the man's action might be thereafter, a charge of desertion can not be wiped out; once made it remains forever because we have no authority to have it removed. We think some latitude should be allowed.

Senator HALE. With this statute in force the President could put anybody on the register who had deserted before the war and who had served in the war?

Admiral WASHINGTON. Yes; that is correct?

The CHAIRMAN. Section 16.

Admiral WASHINGTON. In regard to that section, certain supply officers were directed by the general order of the department to furnish men discharged as undesirables and otherwise with an outfit of civilian clothing, costing about $15 for each outfit. A very short time after that, a couple of months or so, Congress passed an act authorizing this appropriation to cover these instances. The comptroller decided that as Congress later on authorized it, there was no authority for the previous payments. As I recall it, the amount of the payments so made is about $3,000. The supply officers have been checked up for those amounts, and they paid them out in obedience to the general order of the department.

Oftentimes the men who are dishonorably discharged remain around the navy yards or elsewhere and commit offenses, and it was desirable to get them out of the uniform, and for that reason the department ordered these civilian outfits of clothing, in the same way that we give them to discharged prisoners. It is to correct this checkage that we did that.

Senator HALE. That is done now, anyway?

Admiral WASHINGTON. It is done by law now. The total amount, as I recall it, is about $3,000, and that amount is checked against the accounts of these supply officers who paid the money, and they paid it under the order of the Navy Department.

Senator HALE. In spite of the fact that the law did not exist at that time?

Admiral WASHINGTON. The law was thought to exist and I think if it had not been passed subsequently the comptroller would never have raised the point. But his attention was brought to it by the law being subsequently enacted.

The CHAIRMAN. As the law at present exists, does it require you to furnish civilian outfits under these conditions?

Admiral WASHINGTON. Yes, sir. This covers a few cases, as I recall it, less than $3,000 in amount.

Admiral PEOPLES. And section 3 covers that also, Admiral.

The CHAIRMAN. We will take up section 17 now.

Admiral WASHINGTON. The comptroller has recently held that in his opinion an officer promoted to a permanent grade takes rank at the foot of the grade. If he happens to be a temporary officer, we will say, near the top of the list, and is made a permanent officer in the same grade by the board of selection, then he goes to the foot of the list and loses all of his seniority that he held as a temporary officer. It has caused a good deal of an upset condition in

the grade of rear admiral particularly. It is for the purpose of straightening that out that we ask that that section be put in.

There may possibly be some decision of the comptroller later which might jeopardize the list in each grade being perfectly straight, as we understand them, and so to prevent that we have asked that the provisions of section 1485 and 1486 shall continue in force, and the cases of officers who entered the service prior to March 4, 1913, be added to that; that, is the existing law be placed at the foot of that proviso, so as to prevent any disturbances from the condition as the Navy register is now carried.

Senator HALE. Where do you get your date of May 22, 1917?

Admiral WASHINGTON. That was the date that temporary officers were authorized in the Navy, the act of Congress of May 22, 1917, authorizing an increase in the number of officers during the war. As the war is still supposed to be on, those appointments are still in force under the existing law until December 31 of the present year. To prevent checkages of pay of officers who have been heretofore paid in the upper half of the rear admirals grade primarily due to this comptroller's decision, we ask that this law be enacted so as to carry the method on in the same way that the Navy Department has done it since May 22, 1917, the date on which these temporary officers were appointed.

For instance, we have an officer who was made a temporary rear admiral, say, three years ago, and he has reached a certain place on the Navy list, say in the upper half. Then the selection board makes him a permanent rear admiral. Under this decision of the comptroller, he then becomes a bottom officer in the rear admiral's list; that is, he is a bottom man in the lower half, and the comptroller might check his pay.

Senator SWANSON. He is below the temporary admirals?

Admiral WASHINGTON. He goes to the foot, at the bottom of the list. We have one such case that occurred in December, and I think there are others.

Senator SWANSON. Although he might be ahead as a temporary officer?

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. Yet when he is made a permanent officer——

Admiral WASHINGTON. Then he goes below the temporary officers.

Senator SWANSON. Although he might have been ahead of the others as a temporary officer, and generally would be?

Admiral WASHINGTON. Yes.

Senator SWANSON. By what construction was that foolishness brought about?

Admiral WASHINGTON. We can not understand it.

Senator HALE. Would that apply to the temporary rank of bureau chiefs?

Admiral WASHINGTON. No, sir; it applies only to the rear admirals grade, to the line of the Navy.

Senator HALE. It does not affect anybody but the rear admirals?

Admiral WASHINGTON. No, sir. That is the only grade which has two rates of pay.

Senator SWANSON. Which do you think is better, to have a grade of commodore for the lower grade of rear admirals, or keep them rear admirals?

Admiral WASHINGTON. We have gotten accustomed to the rear admirals, Senator. I was very sorry indeed to see the old title of commodore abolished.

Senator SWANSON. Except for the idea of having an upper and a lower grade of rear admirals, you would not have all this trouble; if you had one grade of admirals and the other grade of commodores, you would not have this trouble?

Admiral WASHINGTON. We would not.

Senator HALE. What was the object of establishing these grades?

Admiral COONTZ. At the time it was done, the object was to give our officers prestige in meeting foreign officers abroad, in order that they might have the same rank.

Senator SWANSON. There is a great deal of vanity connected with it. A man liked to be called an admiral instead of being called a commodore, and you had to abolish the grade of commodore so as to have the lower grade of rear admirals.

Admiral COONTZ. I think everybody liked the title of commodore, but we always found that our admiral had to take a back seat wherever he struck any foreigner.

Senator HALE. I do not see why it does not apply to commanders and captains as well as to rear admirals.

Admiral WASHINGTON. There is only one grade which has two rates of pay, that of rear admiral. All the other grades have a fixed payment entirely, and it is only in the case of this one grade of rear admirals that the comptroller has decided that the upper half man upon being permanently promoted drops to the very foot of the list.

Senator HALE. What would happen to a temporary commander who had been made a permanent commander?

Admiral WASHINGTON. Nothing.

Senator HALE. He would go down to the foot of the list?

Admiral WASHINGTON. No, sir. He has nothing to lose. Pay is the only thing we are concerned with here.

Senator HALE. Would it not have an effect?

Admiral WASHINGTON. Under the comptroller's decision it would put him back——

The CHAIRMAN. Why do you put him in here, if you don't care anything about it?

Admiral WASHINGTON. That is to straighten out the Navy lists, to carry it on as we have and as the Secretary wishes, and as I wish, too, very materially, because otherwise it will ball us up badly.

Senator HALE. Why, if it is not used?

Admiral WASHINGTON. It does drop him back under the comptroller's decision, but the department holds that the comptroller has no right to issue instructions covering the administration of the Navy.

Senator HALE. And you don't drop him back?

Admiral WASHINGTON. No.

Senator SWANSON. Let me see if I understand it.

All of the commanders get the same pay, all of the captains get the same pay, practically, unless they have longevity, but the rear admirals of the upper half get higher pay than those of the lower half, because they abolish the grade of commodore. When a man is in the upper grade as a rear admiral, a temporary rear admiral, and he is made a permanent one, he goes to the foot of the lower

grade and his salary is reduced, and the Comptroller of the Treasury won't pay him the salary to which otherwise he would be entitled.

The CHAIRMAN. Let us pass on to the next section, section 18.

Admiral WASHINGTON. That is for the sale of ships.

The CHAIRMAN. Is that necessary?

Admiral WASHINGTON. Yes, sir. We have all manner of difficulty——

Senator HALE. I have some further questions on this. If the chairman does not want them in the record, I will ask them afterwards.

The CHAIRMAN. I have no objection to them going in the record. I thought you had concluded.

Senator SWANSON. You mean on section 17?

Senator HALE. Yes. I want to know, in the case of a man who is appointed a temporary commander, and serves two years as a temporary commander, and then is made a permanent commander, where does he come in?

Admiral WASHINGTON. He comes in at the foot of the list of commanders, but it does not affect his pay, because there is only one rate of pay for a commander.

Senator HALE. I understand about the pay, but it says he shall take rank and precedence from the date of his original commission.

Admiral WASHINGTON. We hold that the comptroller is wrong, but he has the whip hand in the matter of pay.

Senator HALE. Aside from the matter of pay, you are making this a law that he shall take rank and precedence?

Admiral WASHINGTON. Yes, sir; but it will only remain in force until the 31st of December, this year, when the temporary appointments will all go out, and then the Navy register will remain as we have it to-day.

Senator HALE. I take it there will be other temporary appointments from time to time in the Navy?

Admiral WASHINGTON. We refer only to those made under the act of May 22, 1917, which is a war time provision.

Senator HALE. I think it would be well to make it clear in this act just what you do refer to.

Admiral COONTZ. We are not making any temporary appointments.

Admiral WASHINGTON. We have not made any for a year or more.

Senator HALE. I assume that an occasion may come up when you might want to do it, and I assume that there have beem temporary appointments made during the war which will later be made permanent, but you do not want them to take rank and precedence over all future original commissions as permanent officers, do you? You want them to take rank from the time they are made permanent officers, and that they could not do under this as I understand it. I may be wrong.

Admiral WASHINGTON. I think the word "hereafter" in line 12 covers that, "that officers of the Navy who have been or hereafter may be."

Senator HALE. You are looking at it from the basis of pay, and I am looking at it from the point of the rank they will have.

Admiral WASHINGTON. But does not the word "hereafter" in line 12 cover that?

Senator SWANSON. Let me see if I have not got this clear. After the approval of this act all through the Navy a new condition will exist. That is, a man who has a permanent appointment shall take precedence over a man who has a temporary appointment. That is all through the Navy after the passage of this act. Then from May 22, 1917, until the passage of this act, which is covered in lines 16 to 19, inclusive, they shall take precedence from the date of their commission. That prevents back pay of these officers who are in the lower grade, and the Comptroller of the Treasury has decided against them. It reads, "after May 22, 1917, until the date of the approval of this act, officers of the Navy shall take rank and precedence from the date of their original commission in the rank or grade, whether permanent or temporary." That part, from lines 16 to 19, means until this act becomes effective. When this act is approved, then section 17, from line 11 to the word "provided" in line 15, becomes effective and they take precedence after the passage of this act?

Admiral WASHINGTON. Yes, sir.

Senator HALE. Has any temporary officer been made a permanent officer during the year?

Admiral WASHINGTON. Yes, sir.

Senator HALE. Then according to this ever one would take the rank that they would have had as temporary officers?

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. Until the passage of the act.

Admiral WASHINGTON. And then after that we want the permanents to be senior to the temporaries.

Senator SWANSON. If they did not do that they would come in here for claims for back pay. Is not that right?

Admiral WASHINGTON. Yes, sir.

Senator HALE. What effect will this provision have on a man who was appointed a permanent commander in the last two or three years from a temporary position?

Admiral WASHINGTON. It won't have any, or very little, as far as a commander is concerned.

Senator HALE. What effect will it have on his rank?

Senator SWANSON. Up until the approval of this act his precedence is according to his commission.

Senator HALE. Up to the passage of this act he takes rank ahead of the others.

Senator SWANSON. Just as he has been.

Admiral COONTZ. Just as he has been; yes.

Senator SWANSON. The minute this act is signed, he goes ahead of the temporary ones.

Senator HALE. I mean before the approval of this act, anything that has happened in the last two or three years?

Admiral COONTZ. No; anything that has happened in the last two or three years is made solid. Hereafter the permanents who have been selected go right where they belong, and on the 31st of December, the temporaries all go out, anyhow.

Senator SWANSON. If they did not do that there would be a claim here for a whole lot of back pay which this cuts out?

Admiral WASHINGTON. Yes, sir; and there would be a good many officers checked.

Senator SWANSON. It simply says that up to the approval of this act he shall take precedence according to his commission, and after the approval of this act the permanent man shall always be ahead of the temporary man. That is right, is it not?

Admiral WASHINGTON. Yes, sir.

Senator HALE. Then this act should have been passed years ago.

Admiral WASHINGTON. Yes, sir: it was passed by the House two years ago, but did not get any further.

Commander MCCAIN. The reason it did not pass through at that time was that it extended to all grades, and it would make midshipmen who had just come out of the Naval Academy as ensigns ahead of warrant officers who had recently been commissioned temporary ensigns.

Senator SWANSON. Then, in addition, during the war, when this naval militia was in, it was the same thing, and the Army did not make a difference between a graduate of West Point, and we said we would not let the Navy do so. During the war we did not see the necessity for it, but since the war is over I think this ought to be passed.

The CHAIRMAN. Why should not a lieutenant commander or lieutenant, receiving a permanent grade, also precede the temporary officer?

Commander MCCAIN. That is what killed it before, because we included those ranks. That is what killed the passage of this two or three years ago, because those ranks were included therein. The Secretary was against it because he felt the younsters just out of the Naval Academy should not go ahead of warrant officers who had been recently commissioned temporary ensigns.

Admiral WASHINGTON. In line 13, section 17, after the word "of," if you insert "permanent" before "commander," that makes it perfectly clear. I think that makes it without any possibility of misconstruction.

Senator SWANSON. Here is an amendment I would like to offer. My attention has been called to the situation by a girl from California who married a naval officer in Richmond years later, and it seems there is a hardship worked. On page 14 of the last act we have this provision:

> That hereafter, immediately upon official notification of the death from wounds or disease not the result of his or her own misconduct, of any officer, enlisted man, or nurse on the active list of the Regular Navy or Regular Marine Corps or on the retired list when on active duty, the Paymaster General of the Navy shall cause to be paid to the widow, and if there be no widow to the child or children, and if there be no widow or child to any other dependent relative of such officer, enlisted man, or nurse previously designated by him or her, an amount equal to six months' pay at the rate received by such officer, enlisted man, or nurse at the date of his or her death. The Secretary of the Navy shall establish regulations requiring each officer and enlisted man or nurse having no wife or child to designate the proper dependent relative to whom this amount shall be paid.

That was simply effective from the time it was passed. During the war, before that act was passed, there were some officers who were killed or died from sickness or on account of service, in which cases this benefit could not be obtained, and they are more deserving than some other people who came afterwards.

My attention has been called to simply one case of a lady from California who married an officer in Richmond, who has two children, who was left destitute, and she is working here in the departments.

The CHAIRMAN. Will you bring that up when we take up the amendments?

Senator SWANSON. I bring it up now because I wanted these officers to explain it. I offer this amendment:

That the benefits provided in the act of June 4, 1920, for the beneficiaries of officers dying in the service shall apply in the cases of all officers who died on active duty between November 11, 1918, and June 4, 1920.

Senator HALE. Why do you limit it to June 4, 1920?

Senator SWANSON. That was the time when this act became effective and all of them get it. They got it during the war but did not after the armistice.

Admiral WASHINGTON. As I recall it, we had that provision in prior to the war, but when they passed the war risk bill they knocked out this provision and it lapsed between that time and June 4, 1920, when it was enacted.

Senator HALE. It simply takes care of that interregnum.

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. How many cases are there?

Admiral WASHINGTON. Not very many.

Senator SWANSON. One case has been called to my attention where the beneficiary would not get a cent, and if her husband had died since June 4, she would have gotten a gratuity. He was drowned in duty doing some hazardous work, but nothing could be obtained after the 11th of November and before June 4. Inadvertently, they allowed that interregnum to come in. Therefore, I want to offer that amendment. I did not want to offer it except when these officers were here that they might explain it.

Lieut. Commander MCCAIN. I do not think you have covered the interregnum. It was the 17th of October when the war risk insurance act was passed.

Senator SWANSON. This says November 11, 1918.

Lieut. Commander MCCAIN. That was the date of the armistice.

Admiral WASHINGTON. I think it was made to cover that broken period.

Senator SWANSON. They are the only people that did not get it.

Admiral WASHINGTON. Shall we take up section 18?

The CHAIRMAN. Yes; if we are through with the other we can go on to that.

Admiral WASHINGTON. That is something that I am not familiar with.

Admiral COONTZ. We have no special statute now under which we can sell those ships without going through all the circumstances of a survey, an appraisal, with a loss of time one way and another. This gives discretion to the President to sell obsolete ships. Of course, we have sold a large number of ships. We have gotten rid of practically all the yachts and we still have a number of subchasers, but we still have a large number of ships no longer of military value. It costs money to keep them up; it costs ship keepers, and things of that character, and the department is of the opinion that this section should go in.

Senator SWANSON. You have a right to sell ships now after a survey?

Admiral COONTZ. Yes, sir; we have; but surveys and resurveys and such things take a long time.

Senator SWANSON. What is the present law? We enlarged it last year.

Admiral COONTZ. I don't recall any law being enlarged last year.

Senator SWANSON. You have a right to have a survey of a ship if it is of a certain character and you can sell it under certain conditions. This would allow you to sell the whole Navy.

Admiral COONTZ. Yes; there is no doubt it would. It is not of any great importance, except as to the matter of saving time and so on.

The CHAIRMAN. How was the *Missouri* sold?

Admiral COONTZ. By special act of Congress.

Senator SWANSON. They could not sell under the existing law?

Admiral COONTZ. No, sir.

Senator HALE. Under this proposed section you could sell the whole Navy?

Senator SWANSON. Yes. I am not in favor of it.

Admiral COONTZ. I am doubtful as to its propriety.

Senator SWANSON. As long as you are required to have a survey, there is no danger of any fraud in the sale of any vessels. I do not think this ought to go through.

Admiral COONTZ. I am doubtful of the propriety of that section.

The CHAIRMAN. What authority is there vested in the Secretary of the Navy to select ships for targets and experiments?

Admiral COONTZ. Those are old ones. I do not believe we have had to have authority of law to utilize them. Do you recall, Admiral, in the case of the *Indiana*, *Iowa*, or *Massachusetts*?

Admiral PEOPLES. No; there is no special authority of law.

Admiral COONTZ. They can be condemned in the regular way and stricken from the list.

The CHAIRMAN. I should think that would be considered in naval use.

Admiral COONTZ. Yes. We have methods to do that. After thinking this over, I doubt the propriety of putting in that clause.

Senator SWANSON. The present law is ample under which to sell these vessels, and in a way which will satisfy the people.

The CHAIRMAN. The reason I asked about selecting ships for target practice, there is quite an insistent request that some provision be made for authority to provide some obsolete ships, or German ships, for the use of Gen. Mitchell to destroy them with bombs.

Admiral COONTZ. The Secretary of the Navy will make a report on that within 48 hours after the joint board acts. As I said here the other day, the Navy itself is going to have experiments with the *Iowa* under radio control, and with the five German ships, three destroyers, and the *Frankfurt* and *Ospreesland*—bombing and all sorts of experiments.

Senator HALE. Those ships are of no value to us, are they?

Admiral COONTZ. They are; but under the treaty of Versailles we are compelled to sink them before August 1.

The CHAIRMAN. Are you through with section 18? If so, we will take up section 19.

Admiral WASHINGTON [reading:]

That the percentages of captains and commanders in the Supply Corps are hereby increased from 4 and 8 to 6 and 12, respectively.

The Secretary wrote a letter to the committee of the House of Representatives on the 2d of April, 1920, approving of this provision. During the past winter I took it up with him and he disapproved it and did not recommend its enactment.

Admiral COONTZ. You had better report that the Secretary is going to send another letter down here in which he approves it.

Admiral WASHINGTON. Then, that is all right. He told me he did not wish to approve it.

Senator HALE. Do you all approve of it?

Admiral COONTZ. I believe it should be the same for all, and if they have been slighted I believe it is only square to make them equal to the others.

Senator SWANSON. Does the line want it?

Admiral COONTZ. No; the line has not got it and is not asking for it.

Senator SWANSON. You won't be coming up here and asking for it for the line?

Admiral COONTZ. No; I won't.

Senator HALE. What does it mean?

Admiral WASHINGTON. At the various navy yards and shore stations there are several activities which practically, we will say, are equally important with those that are presided over by the Medical Corps, and, generally speaking, whereas the Medical Corps or the hospital would have a captain, a medical officer with the rank of captain in command of it, the supply department would have only one supply officer with similar rank at the yard. He might be the general storekeeper, we will say. Then, the paymaster of the yard and the disbursing officer, we will say, would be of lower rank.

The CHAIRMAN. Why do they have higher percentages than the line? Why should not the entire percentage throughout the Navy be the same?

Admiral WASHINGTON. It should be, but when they enacted the personnel bill of August 29, 1916, and made these ratios they took the numbers as they existed in the Navy Register at that time as a basis fundamentally very largely and figured out these percentages on the then existing conditions—the paymasters, the doctors, the civil engineers.

The percentage given the supply corps was a half of 1 per cent of flag officers, 4 per cent of captains, and 8 per cent of commanders, which was the same as that given to the Medical Corps. In the Construction Corps they gave 4.5 per cent more captains and 6 per cent more commanders. In the Civil Engineering Corps they gave 1½ per cent more captains and 6 per cent more commanders. In the Chaplains Corps they gave 6 per cent more captains and 12 per cent more commanders.

In other words, the Construction, Civil Engineer, and Chaplains Corps were given considerably more than either the Medical or the Supply.

Senator HALE. This brings them all about even?

Admiral WASHINGTON. Nearer. As I figure it out in five or six years the ratio would be about equal between the Supply and the Medical Corps.

Senator SWANSON. Let me see if I have this right. In the Construction Corps they give one-half per cent of admirals; in the Engineer Corps one-half of 1 per cent, in the Medical Corps one-half of 1 per cent, and in the Supply Corps one-half of 1 per cent.

Senator HALE. That is the same.

Senator SWANSON. The line, 1 per cent admirals. We give them more because we need them in segregated fleets. Captains in the Construction Corps, 8½ per cent. That is a small corps of 150, and if we did not give them a certain per cent we would not have any. The civil engineers get 5½ per cent in captains; the Medical Corps gets 4 per cent, the Supply Corps 4 per cent, and the line 4 per cent. That is right?

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. In the case of commanders, the Construction Corps gets 14 per cent. It is mighty hard to get people to go into construction; the Engineering Corps, 14 per cent; Medical, 4 per cent; line, 7 per cent.

This is to increase the Supply Corps from 4 to 6 in captains and from 8 to 12 in commanders?

Admiral WASHINGTON. It is 50 per cent increase in each grade.

Senator SWANSON. What I want to know is whether it is going to be held as a precedent for the line to come here next year and say, "We are the fighting force of the Navy"——

Admiral WASHINGTON. I hope not.

Senator SWANSON. "We bear the brunt of it. You give even the supply department a greater percentage of captains and commanders than you give us." How does the line feel about that?

Admiral WASHINGTON. As far as I am concerned, the line will not ask for anything more.

Senator SWANSON. Not as far as you are concerned, but can you speak for the entire line?

Admiral COONTZ. As far as it is possible to do so. The line officers have got to get out, you know, if they are not promoted. You have no provision for supply officers retirement because you have no age of retirement. Therefore in that respect the line has a little advantage.

Senator SWANSON. The line has this advantage. The line is slowly promoted at the beginning. All the staff officers run far ahead of the line in the first 10 or 15 years. In the last 10 or 15 years the line recently has been promoted much faster than the staff officers, especially the supply department. There is some element of justice in it.

Admiral COONTZ. There is some element of justice in it. At the same time it is rather a dangerous thing to bring up at the present time. Somebody might throw something in the machinery.

Senator HALE. Who is asking for this?

Admiral COONTZ. The Supply Corps.

Senator HALE. Is the head of the corps asking for it?

Admiral PEOPLES. Yes.

Senator HALE. Why do you want it?

Admiral PEOPLES. In order to equalize the promotion of the officers of the Supply Corps with the running mates in the line. Since 1916 the law stipulates that up to and including the rank of lieutenant commander they shall keep pace with each other. That is, the staff man shall keep pace with the running mate in the line. The flow of promotion has been so rapid that the running mate in the line is now the equivalent of about four to five years ahead of the original running mate in staff corps, and it is to equalize this that these percentages have been proposed.

Senator SWANSON. Let me ask you this. Until we passed the law of 1916, which we fought out at the time I was acting chairman, at that time we had no rank of admiral in the Supply Corps at all.

Admiral PEOPLES. No.

Senator SWANSON. You had mighty few captains. We increased the corps there and treated all these different departments precisely as of the line, and it never had been done before up to lieutenant commander. After that you had mighty slow progress higher, did you not?

Admiral PEOPLES. It was very slow.

Senator SWANSON. We have treated these corps all of them equal with the line, put them ahead of the line. Each corps is treated with the same consideration as anybody in the line, except you can not promote them, and they do not need any more supply officers. You have the same percentage the line has, the same the Medical Department has; that is, if Congress determines you need so many Supply officers. That is true, is it not?

Admiral PEOPLES. Yes.

Senator SWANSON. There is no difference. The only reason why you don't promote as fast is because Congress has not thought you needed as many officers in the Supply Corps as in the line.

Admiral PEOPLES. No; they don't want to get additional officers. It is merely to increase the persentage.

Senator SWANSON. That is what I said. The reason you do not get the increase of officers is because you do not need as many men in the Supply Corps as in the line.

The CHAIRMAN. It would be a beautiful situation if you had as many men in the Supply Corps as you had in the line—just the one item of overhead cost equal to the whole organization.

Admiral PEOPLES. The total number is all right. It is merely a question of the distribution of those numbers in those ranks; that is all.

Senator SWANSON. We give you the same number of captains in percentage that the Medical Corps has; the same percentage the line has. The only difference is the small Engineering and Construction Corps, which requires special talent, an especially small corps. You have the same percentage as anybody else, except for those two small corps, the engineering and the construction.

Admiral PEOPLES. The Medical Corps is very much larger in numbers. The smaller the corps it seems the larger the percentage it has been necessary. The Supply Corps is not nearly as large as the Medical Corps, and we have got these people that are five years now behind.

Senator SWANSON. How many men have you?
Admiral PEOPLES. Six hundred and forty.
Senator HALE. How many captains now?
Admiral PEOPLES. Twenty-four; 4 per cent of that.
Senator HALE. Twenty-four captains now?
Admiral PEOPLES. Yes.
Senator HALE. And that is not enough?
Admiral PEOPLES. No, sir. It will represent an actual cost of about $26,000 a year.
The CHAIRMAN. Is that all on that section?
Admiral WASHINGTON. My only objection is that it is building up more officers for shore duty. I think it is perfectly proper they should be heads of departments, etc., but it is because captains as a rule do not go to sea, and in that respect it makes it an addition to the number for shore duty.
Senator HALE. Captains in the Supply Corps, you mean?
Admiral WASHINGTON. Yes, sir.
Admiral PEOPLES. It does not increase the number already on shore.
Admiral WASHINGTON. Only relatively.
Senator SWANSON. The Construction Corps never goes to sea?
Admiral PEOPLES. No.
Senator SWANSON. The Engineering Corps never goes to sea?
Admiral PEOPLES. No.
Senator SWANSON. The Medical Corps does go to sea?
Admiral PEOPLES. Yes.
Senator SWANSON. Well, we will consider this. Give us a memorandum on it.
Admiral WASHINGTON. In regard to section 20, the comptroller has held that enlisted men of the Navy transferred after 16 or 20 years' service to the Fleet Naval Reserve, as they are now authorized by law, are transferred on the day they complete the service. Otherwise, if a man wishes to be transferred after 16 years' service he has to wait until he has completed 20 years, and then go on. The object of this was to let the men transfer at any time during an enlistment after they had completed 16 years of service. If they have less than 20 years' service, then they go on the 16-year basis. That is to correct the comptroller's decision.
Section 21 is for the purpose of preventing men wearing the naval uniform. This section as it appears here was agreed to after Congressman Bankhead appeared before the House Naval Affairs Committee, and he and I concluded that that would meet all the requirements. He claimed that a number of men had in his section of the country wished to buy Army and Navy uniforms for general use, and they had been arrested.
Senator HALE. It is a pretty good idea, is it not?
Admiral WASHINGTON. He claimed that because of the poverty of the people it was hard not to allow it, and particularly so as the Government had put this stuff on sale all over the country, and yet they had run in these five or six men because they were wearing the uniform. I think that meets the situation.
The CHAIRMAN. Why do they discriminate in favor of people convicted of a felony? It does not apply to them.
Admiral WASHINGTON. I see that they are excepted.

Senator SWANSON. Under the general law a man that gets out of the Navy could not wear the uniform.

Admiral WASHINGTON. Yes, sir.

Senator SWANSON. And that extended it so they could wear it until the 1st of January, 1923.

Senator HALE. These fellows convicted of moral turpitude, can they wear it?

Senator SWANSON. They can not. No man except he is a member of the Navy can wear the uniform. Then we passed the law extending it until January 1, 1923.

Admiral WASHINGTON. It was not so much to prevent the people wearing it but to prevent the misuse of it. We have a great many cases around the navy yards and stations, and I suppose it is the same with the Army also, where all sorts of crimes have been committed by men wearing the uniform, and it was found on investigation that many of these uniforms were worn by men not belonging to either service.

The CHAIRMAN. Why not repeal the whole act? I don't see why people should wear the uniform that are not in service.

Admiral WASHINGTON. I think as it is worded there now it will meet all the requirements.

Senator HALE. Don't you think they ought to stop wearing it any more now for public use?

Admiral WASHINGTON. They have a great many million dollars worth of it—how many, do you know?

Admiral PEOPLES. $61,000,000.

Senator HALE. This says it can not be worn after January 1, 1923. If you are going to sell them on up to January 1, 1923, then you will come before us at that time and ask to have it extended.

Admiral WASHINGTON. We asked last year to have it repealed outright, but Mr. Bankhead made this appeal to the Naval Affairs Committee of the House because of these cases he had personal knowledge of, so they made the limit 1923. The change was not made at the request of the department.

The CHAIRMAN. It looks to me like that is rather a weak cause. Can't they take the buttons off the uniform and the insignia, so as to change the appearance of it?

Admiral WASHINGTON. That is what we require, that all distinguishing marks shall be removed before sold.

The CHAIRMAN. I think the whole act ought to be repealed.

Admiral WASHINGTON. The next has already been settled.

The CHAIRMAN. What is your recommendation in regard to section 20?

Admiral WASHINGTON. That is to correct a comptroller's decision that men have to be transferred on the dates of completion of 16 and 20 years' service.

Admiral COONTZ. Supposing a man has been in for 16 years and he thinks he wants to stay for 20. After staying 18 he decides he would like to get out. We would like to let him do it, but the comptroller says he can not do it until his 20 years are up. It is a benefit, and costs nothing.

The CHAIRMAN. We have already heard about section 22. What about section 23? That is this personnel bureau. We reported that bill.

Admiral WASHINGTON. Yes, sir; you reported that last year.

Senator HALE. What is that?

Admiral WASHINGTON. The Bureau of Navigation is nothing except the personnel, and the term "Navigation" is in no way an indication of the duties of that bureau. Last year they changed "Steam Engineering" to "Engineering Bureau," and it was recommended that "Navigation" should be changed to "personnel."

Senator HALE. Will it not cause a lot of mix ups?

Admiral WASHINGTON. It will for a very little while. It is immaterial. It would cause a little mix up for a while, but in a year or two people will almost have forgotten they knew it.

Senator HALE. The time-honored name is Navigation.

Admiral WASHINGTON. Yes.

Senator HALE. It has always been Navigation?

Admiral WASHINGTON. Yes.

Senator HALE. Why not let it stay that?

The CHAIRMAN. Now we are up to section 24.

Admiral COONTZ. That is the bill for the bureau of aeronautics, which we all favor. It has been gone into many times. Of course you all understand the situation.

Senator SWANSON. This committee reported it.

Admiral COONTZ. Yes. Aeronautics is under operation. I have not the time to properly attend to that job, so I have a director of aviation. He has got part of it under Construction, part of it under Engineering, part of it under Ordnance. To give it the proper status and what we all expect aviation to be in the future, and what you have all been told in the last few days, it should be made a separate bureau and controlled by one officer who has its interests at heart, with full power and authority.

Senator HALE. You mean a separate bureau in the Navy Department; you do not mean to join with the Army.

Admiral COONTZ. A separate bureau in the Navy, yes.

Senator HALE. Is this practically the same as the bill reported from this committee by Senator Keyes?

Admiral COONTZ. Yes, sir; and the same as reported by the House. I think it is word for word. It has all been attended to.

The CHAIRMAN. How about this organization of the bureau that is provided in this bill here? Has that been worked out in the department?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. That makes him like the chief of another bureau?

Admiral COONTZ. Yes, sir.

The CHAIRMAN. Is that the same in the other bureaus as to the general organization?

Admiral COONTZ. Yes, sir; the organization is just the same. It has been through all of the committees, and everything else.

The CHAIRMAN. A chief clerk at a salary of $2,250; is that the same?

Admiral COONTZ. That is the same salary as the other chief clerks get.

The CHAIRMAN. Well, that concludes the hearing.

By the way, here is another amendment that has been proposed:

That any officer of the Navy who has served over 40 years as a commissioned officer and 4 years as chief of bureau, may, on his own application, and in the discretion of

the Secretary, be assigned to active duty and when so assigned shall receive the active duty pay and allowance of his rank.

Is not that authority already vested in the Secretary?

Admiral WASHINGTON. During war only. After the war is over any retired officer ordered to active duty can not receive the pay [illegible] ater than that of a lieutenant commander in the Navy or a major [illegible] the Marine Corps. The full active-duty pay for a retired officer [illegible] only continuous during the present war.

The CHAIRMAN. Does that apply also to admirals?

Admiral WASHINGTON. It applies to everybody, yes; it is general [illegible] slation.

Senator SWANSON. They could not get as high as lieutenant commanders until it was amended two years ago. The Army got it as high as major, and we followed it up and gave the Navy the lieutenant commander's pay.

The great disadvantage of this law is the fact it puts the man on the retired list superior over the man on the active list. A man gets retired, the Navy wants him or needs him, and he comes right back, gets his pay, retired, and quits when he pleases and goes back. The fact he does not get any higher than lieutenant commander has a tendency to retard a fellow from being so anxious to get on the retired list, and you make it more attractive to be on the retired list than to be on the active list and the fellows will be trying to get on the retired list; is not that so, Admiral?

Admiral WASHINGTON. There are a great many of them on the retired list, some that we could well use actively if we were allowed to—a great many.

Senator SWANSON. Their full pay as lieutenants commander amounts to about three-quarters of what they will get on the retired list?

Admiral WASHINGTON. Yes, sir; about $3,000 a year—$3,500.

Senator SWANSON. It amounts to about the same in the higher grades.

Admiral WASHINGTON. They would all be the same.

Senator SWANSON. You take a man that has been in the service for 40 years and been retired——

The CHAIRMAN. We will take that under consideration.

Senator SWANSON. I have not looked into it thoroughly, but I am not in favor much of increases in the priviliges of retired officers.

The CHAIRMAN. This concludes the hearing.

(Thereupon, the committee adjourned subject to the call of the chairman.)

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